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SIMULATED MISSION ENDURANCE TEST (SMET) FOR AN AIRCRAFT ENGINE --ETC(U)
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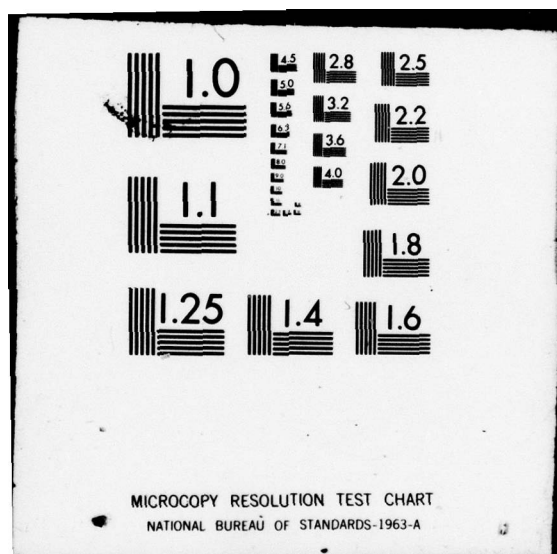
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SIMULATED MISSION ENDURANCE TEST (SMET)
FOR AN AIRCRAFT ENGINE TO BE USED IN A
FIGHTER/ATTACK ROLE

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NAVAL AIR DEVELOPMENT CENTER
Warminster, Pennsylvania 18974

23 APRIL 1979

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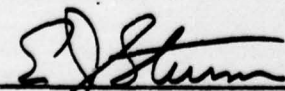
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at intermediate and augmented power. It is concluded that this SMET will aid the overall development process to substantiate the suitability of a new engine for service introduction.

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I N T R O D U C T I O N

BACKGROUND

The history of turbine engine development programs has always been in the direction of improved performance and fuel consumption with reduced engine weight. The rush to realize the tactical advantage of system performance afforded by advanced turbine technology and engine design has in almost every case resulted in initially less than desirable levels of reliability, availability, and higher cost.

Aircraft engines in particular, are very visible items in the acquisition cycle due to their increasingly high unit cost with a past history of low reliability during initial fleet weapons systems operation. Naval aircraft weapon systems are designed and evaluated in accordance with request for quotation (RFQ) mission profiles based on generalized projected combat missions with specified weapons and avionics suite. Missions have been defined to put emphasis on range, loiter time or combat time. Other single point performance requirements such as single engine hot day capability, specific excess power, wave-off requirements, combat ceilings, etc., are also evaluated. There have been no provisions in the aircraft specifications for defining realistic operational missions such as operations, test and evaluation (OT&E), training missions, carrier qualification, etc., which are necessary to establish the design requirements for the actual environment of the aircraft propulsion and related systems.

Historically, the initial measure of engine acceptability is the 150 hour model qualification test (MQT). During engine development, successful completion of this test along with achieving the performance requirements were the contractor's primary goal. To develop an engine to endure a more severe environment than the 150 hour MQT was not in the contractor's financial interest since engine testing is a time and resource consuming task. After the engine satisfactorily completed MQT and began service operations, design deficiencies were corrected and durability improved through the component improvement program (CIP) with its associated testing. CIP commenced upon completion of the engine MQT.

The deficiencies discovered during fleet usage often proved substantial, frequently creating adverse tactical positions until fixes could be designed, tested and incorporated. With the recent spate of engine problems and a new engine development ready to start, the Naval Air Systems Command during early 1976 decided to revise procedures for current and future engine design and test specifications. The goal of establishing expected fleet usage was to be achieved by a multi-lab effort--Naval Air Development Center (NAVAIRDEVCE), the Naval Air Test Center (NAVAIRTESTCEN), and the Naval Air Propulsion Center (NAVAIRPROPCE). This effort had two major objectives: (1) development of meaningful design guidelines for the purpose of enhancing durability in terms of expected engine in-service duty cycles and (2) development of thermal stress test cycle patterns which reflect those duty cycles with the purpose of exposing latent design deficiencies prior to initiation of high engine production rates.

The present effort documented herein deals with the development of a 750 hour simulated mission endurance test (SMET) for the F18 powerplant, in accordance with the task assignment of reference (a). Subsequently an on-going effort will be continued at the Naval Air Development Center for storage and updating of mission profile data. It is anticipated that operational mission profiles and engine duty cycles utilizing flight test data will be obtained and reported on for the AV8, S3A, F14 aircraft and the SH2, and AH1 helicopters.

DISCUSSION

APPROACH

The methodology adopted in defining the F18 powerplant operational environment began by visits to Navy and Marine Air Stations, summarized on Figure 1, on both the East and West coasts from which fighter and attack aircraft operate. These squadron locations were selected because the F18 will be flown in a fighter and attack configuration (VF/VA). It was assumed that the F4, F14, A6, and A7 mission profiles would reveal most of the relevant information pertaining to the F18 duty cycle.

The purpose of visiting these squadrons was threefold: (1) obtain detailed mission descriptions via pilot interviews, (2) examine wing and squadron records to determine aircraft use, and (3) have fleet pilots fly mission legs in a training simulator for engine parameter data acquisition. At first, the objective was to use flight test aircraft on these mission profiles and record engine data directly. Due to the time constraint imposed by the pending F18/F404 contract award and the limited availability of four fully instrumented test aircraft of the types desired, it was decided to record data from the flight/simulator displays and augment with as much flight test data as time permitted.

Engine data and aircraft usage usually consisted of aircraft altitude and airspeed, engine fuel flow, rotor speeds, and exhaust gas temperature. The training syllabus gave mission category breakdown in terms of flight hours per sortie and the number and type of sortie within each category. Wing records contained the total number of flight hours for each squadron including both land and carrier operations. While data was being collected, computer codes were prepared, reference (b), which aided in the reduction and analysis of the voluminous amount of data gathered. Results from these missions, e.g., time at various power settings (idle, part power, intermediate (IRT), afterburning (A/B), power lever excursions, mission percentage, etc.) were integrated to formulate the 750 hour SMET for the F404 turbofan engine.

FLEET VISITS

A small team consisting of three to four personnel from NAVAIRDEVCON, NAVAIRTESTCEN, and NAVAIRSYSCOM visited, during about one month's time, a majority of Navy and Marine Air Stations. Experience on a previous task with similar objectives, reference (c), indicated that a maximum amount of information was obtained when pilot interviews were conducted individually.

As the study progressed, this approach allowed interviewers to develop and maintain a high level of proficiency which enabled the visits to be completed within the time and cost constraints. In addition, this one to one approach to interviews permitted details of the missions to be obtained from a large number of pilots with a broad range of flight experience and skill.

The main emphasis during each visit was to extract the missions with the most common profile realizing that not all sorties within a category are identical. During numerous pilot interviews within a squadron, mission legs constituting a profile were found to be consistent from one pilot to the next; moreover this repeatability gave assurance that realistic profiles were being gathered. Even though a large number of profiles were obtained and portions of sorties were similar, filtering of the information was necessary to develop the anticipated operational environment pertinent to the SMET development.

MISSION PROFILES

The variance in mission profiles is illustrated by the squadron training syllabus which contains numerous profile types within the mission categories. For example, the F4 intercept category contains more than a dozen sorties each having the objective of proceeding to a designated station to intercept opposing aircraft. However, the intercept can be accomplished at a variety of airspeeds and altitudes; a high altitude intercept is usually above 9144 m (30,000 ft) and at airspeeds in excess of 232 m/s (450 kts), by contrast to a low altitude intercept usually below 4572 m (15,000 ft) and airspeeds within a range of 180-232 m/s (350-450 kts). With cooperation and consensus among the surveyed pilots, a representative landbased intercept mission was described including the various intercepts accomplished during training.

Landbased operation, according to most pilots, is characterized by a standard departure from the base. That is, a warm-up, take-off, climb to low altitude to await clearance to continue the climb to cruise altitude. Cruising to and from the combat arena sometimes included different types of formation flying. Since the use of formation sorties was small, a formation cruise was included in the other mission categories. In addition, pilots indicated that during typical training flights any excess fuel was used in repeated approaches and touch-and-go's.

If two or more mission categories had essentially similar profiles except for a unique leg, those categories were merged and the resulting profile constructed to include the unique leg. For example, F14 pilots frequently used a ground controlled approach (GCA) during several missions under the navigation category and the familiarization category. Therefore the GCA was added to the familiarization representative mission in terms of its frequency of use and the common legs between categories being the same, the navigation category was eliminated.

A direct result of this consolidation is that the representative mission profile in some cases is longer than maximum aircraft fuel load would allow. However this creates no hardships since the SMET is not constrained by any fuel limitations. Pilots indicated that in-flight refueling is used more often at sea when carrier operations indicate a more critical use of fuel to insure that missions are fulfilled and that aircraft are given ample loiter fuel before carrier landing.

Shipboard operations are characterized by somewhat heavier store loading than shorebased operations, requiring use of afterburners during takeoff and climbs. There is a standard departure from the carrier similar to the shorebased sequence. This departure contains a warmup, takeoff and 152 m (500 ft) cruise for 13 km (7 n. mi.); once clear of carrier airways traffic, a climb to cruise altitude. Refueling occurs after the intercept or interdiction to allow a twenty minute loiter time before an approach to landing.

The sortie categories for the most common missions are listed below with brief descriptions.

Familiarization (FAM) - this sortie represents aircraft and engine performance over the range of speeds and altitudes which allow the pilot and flight officer to become proficient in aircraft use.

Instrument (INST) - this sortie is flown to further train the pilot and flight officer in the use of specific aircraft instruments especially when weather conditions or training require instrument flight rules, (IFR).

Tactics (TACT) - these sorties are flown to teach the pilot how to maneuver his aircraft during both the offensive and defensive roles. These maneuvers raise the skill level of the pilot as he progresses to combat ready status.

Intercept (INT) - these sorties teach the pilot air to air combat intercepts; the engagement may be a one against one with similar aircraft or two against two with dissimilar aircraft or combinations thereof.

Ground Attack (GA) - during this sortie the pilot repeats practice ordnance delivery with multiple runs to ground level bombing areas.

Field Carrier Landing Practice (FCLP) - this sortie allows pilots to repeat and practice slow speed flight during approaches to landing followed by a touch and go.

A complete set of representative mission profiles for sea and shore based operation were compiled and condensed from the A6E, A7E, F4J, and F14A flight operations. The respective engines from which the data was obtained are J52-P-408, TF41-A-2, J79-GE-10, and the TF30-P-412. The F18 aircraft was designed to replace the F4J and the A7E. The F4J was selected to represent the expected usage of the F18. The nine missions shown in Figures 2 to 10 represent fighter and attack roles. These mission profiles show three shipboard sorties and six shorebased training sorties for the F4J aircraft.

The F4J missions were then categorized into the anticipated F18 missions or duty cycles listed on Table I. Wing records provided a frequency of sortie type based on squadron log books. This percentage or mix for each mission shows how many flights were logged out of the total number of flight hours. Table I shows the individual totals for shipboard and shorebased use and a final combined total as applied to the SMET. These nine duty cycles comprise the full range of expected F404 turbofan use. For brevity the mission names will be numbered one through nine.

TRAINING SIMULATORS

To obtain engine performance parameters rapidly, two avenues were immediately accessible. Training simulators located nearby each training squadron and the aircraft flight testing on-going at NAVAIRTESTCEN were used with the flight test assigned those mission legs where data was most difficult to obtain in the flight simulator. Fleet aircraft training simulators have become an increasingly valuable tool in pilot training. The simulator provides a realistic environment in which the aircraft cockpit is duplicated with all switches, controls and indicators necessary to perform any mission or mission leg. Motion is supplied via hydraulic actuators and a six degree of freedom platform to which the cockpit is mounted. Pilots do not usually have visual cues set up with these squadron simulators and thus relate a tendency to overcompensate during a particular aircraft maneuver.

During a representative sortie simulation gross weight and center of gravity are computed based on fuel and external stores loading. The values are continuously updated to maintain a current status as consumables are depleted or released. As the pilot simulates flight characteristics of the aircraft, the engine condition is monitored both in the cockpit and on the simulator control panel.

Most simulator equipment employed in this effort did not have adequate peripheral recorders, thus requiring a filmed history of the engine condition during sortie simulation. The data for each leg was transposed from the film at NAVAIRTESTCEN to graphical form. Each leg had to be reformatted onto computer data cards for subsequent analysis.

FLIGHT TEST

Test time at NAVAIRTESTCEN was constrained by limited availability of adequately instrumented aircraft to be flown on the selected profiles. Therefore emphasis was placed on mission legs which could not be realistically flown on the training simulator, e.g., air combat maneuvering or intercepts and those legs which were common to most profiles. Flight data were recorded on strip charts for aircraft/engine critical parameters. In the case of the A6E, no engine instrumentation was available, consequently data were obtained via an over the shoulder camera focussed on the altimeter, airspeed indicator and tachometer. These data were also converted to computer data cards for later analysis.

With the tight project deadline imposed for development of an F404 SMET, engine operational data was developed from a mixture of training simulator and flight test data. A comparison of these data types for two different profile legs with different pilots flying each segment is illustrated in Figures 11 and 12. Each plot shows the high pressure compressor rotor speed as recorded during flight testing of the maneuver in a solid line, and the same parameter history from the training simulator superimposed in the dashed line on the same scale. This similarity in power movements provided confidence to construct a data base from two types of data with sufficient accuracy to develop an F404 SMET.

DATA REDUCTION AND ANALYSIS

While the data were being obtained and collected from the simulators and test aircraft, software to reduce and analyze these types of data was developed. The codes used to analyze and produce the SMET are documented in reference (b).

A single mission leg was composed of both types of data, simulator and flight test in its unprocessed format. Therefore a modularized technique was applied to construction of individual mission profiles. Each complete mission profile was a composite of many profile legs such as takeoff, climb, cruise, touch and go, etc. This approach, shown in Figure 13, allowed the flexibility of using either type of data, training simulator or flight test, where there was a paucity of mission leg data.

It should be noted that during each mission time history, an unperturbed segment represents cruise or loiter conditions. In those cases, the survey results were used to approximate time at the cruise or loiter conditions.

As detailed in the SMET DEVELOPMENT section which follows later, the F404 SMET was generated from J79 data. Thus manipulations of the J79 data base were necessary to account for differences in the operating exhaust gas temperature (EGT) between the F404 and J79 as well as for differences in the power required for the F18 and F4. This was accomplished in two stages. First, at a given flight condition in dry power, the temperature difference between the operating temperature and idle was normalized with respect to the temperature difference between intermediate and idle, as function of the PLA.

In afterburning the same approach was used with the temperature differences being based on maximum afterburning and intermediate temperatures. These data were then used to establish a reference PLA-EGT relationship for the F404 and is shown in Figure 14. To adjust for differences in airframe power required, the data in Table II was generated which shows the percent intermediate or afterburning thrust required across a broad range of flight conditions for the F4 and F18. An examination of Table II showed that the mean difference in the percent intermediate thrust required is about 12% which translated into a 3° PLA change for the F404 relative to the J79. In afterburning the mean differences were negligible.

Changes in PLA and EGT from flight test and simulators were sorted and stored by the computer codes of reference (b) according to both frequency and size of the changes throughout each of the nine mission profiles in the data base. Figures 15-23 display the frequency vs. relative EGT changes for the nine missions in the data base. The curves demonstrate a trend of increasing frequency as the temperature change decreases.

The data base was interrogated with special purpose computer codes which extracted throttle position data, the time spent within certain throttle position bands and the frequency of movements between throttle bands. In counting the movements between throttle bands, only those movements larger than three degrees without a reversal were considered, thus many small movements in the same direction are counted as part of the larger one from one throttle band to another.

Those codes were made compatible with off-line CALCOMP plotting equipment which generated output data in the format shown in Figure 24. The left side of the figure shows the time, in percent of total mission time, spent within discrete throttle bands. The throttle position data in the dry power mode has been normalized to the intermediate power position (shown as PLA max.). The right side of the figure shows the frequency of movements between throttle bands. For example, the number 2, which appears at the intersection of the fifth row and eighth column, means that twice during the mission the throttle was advanced from a position within 40 to 50% intermediate to a position within 70 to 80% intermediate. Above the main data presentation the time spent within the throttle bands is also shown in minutes of real time. The resulting throttle position summary data are shown in Figures 24-32 for all missions with the order coinciding directly to the mission names in the previous nine figures. A similar program was used to determine the resulting duty cycle flight envelope from the airspeed and altitude data. Figures 33-41 show the time in minutes spent within particular airspeed/altitude envelope bands.

SMET DEVELOPMENT

In defining a 750 hour simulated mission endurance test, three components are necessary; the mission mix (mission use in terms of percent), parameter histories for these missions (test cycles) and a sequence of test cycles which make up a schedule for running the engine in a test cell. Tabular data acquired from simulators and test aircraft are listed in Appendix A for three parameters with time in seconds for the nine duty cycles. The duty cycles are numbered to correspond to the missions listed in Table I.

The sequencing of individual test cycles was accomplished using a computer based random numbers generator. Each mission was assigned an integer number whose initial probability of selection was weighted by the percentage of time spent on that mission out of the total mission mix as noted in Table I. As each mission was selected its probability of being selected again was then reduced by the ratio of the remaining number of hours for that mission out of the total required in 750 hours. This procedure was adopted to avoid selecting mainly those missions with a high percentage of the mission mix time early in the SMET cycle. Furthermore, when a particular mission had accumulated all its required time, it then had a zero probability of selection. This was done twice; once for the majority of the SMET which will be run at ambient inlet temperatures and pressures and once to satisfy the testing at temperatures and pressures experienced at supersonic speeds. These two sequences of cycles are shown in Tables III and IV. Only the intermediate and afterburning modes of Table IV will be run at the elevated inlet conditions, since the aircraft does not operate part power at supersonic speeds.

Table V compares the 750 hours SMET originally proposed by the NAPC with the SMET developed by this effort. It is pointed out that the original version of the SMET reflects only the F404 RFQ missions and did not then have the benefit of inputs from this present effort related to actual fleet mission profiles and engine duty cycles. Intermediate and afterburning times are significantly lower for these missions when compared with the nine duty cycles developed from the data obtained via fleet mission profiles. In contrast, the power lever angle excursions differ dramatically from those of the original SMET. For example, in the FCLP mission there were 1008 small and moderate excursions compared with 12,255 in duty cycle #4 which is the same mission (see Table I). These small and moderate movements drive the total figures toward 42,000 small and moderate excursions in the nine duty cycles. All original power lever movement estimates proved to be very conservative.

CONCLUSIONS

This study has investigated current Navy and Marine fighter and attack aircraft usage. A result of this investigation has been the establishment of a data base of engine duty cycles for a broad range of aircraft missions. This data base has been used to formulate a 750 hour simulated mission endurance test cycle specification for the F404 engine. The proposed specification approaches the kinds of throttle operation and numbers of throttle movements experienced by in service aircraft engines. Thus it is concluded that this test will be an excellent indicator of expected engine durability of the F404 when coupled with other tests required during the development and qualification process of a new engine.

The data base can also serve as a basis for formulating a SMET to evaluate changes to or redesign of existing components in engines presently qualified.

The approach taken herein could very well be extended to other aircraft system components such as the hydraulics system or avionics, for example.

RECOMMENDATIONS

It is recommended that the approach taken herein, which established a data base of engine usage for fighter and attack aircraft, be extended to include other types of aircraft, systems such as patrol, rotary wing, V/STOL, trainers, etc. Furthermore, it is recommended that this data base be periodically updated to reflect any significant changes in engine duty cycles.

Since the F18 will be one of the newest aircraft to enter service it is recommended that selected F18 aircraft be instrumented to acquire engine usage data to be used for future design guidance and test specifications.

As part of the development and qualification test cycle, it is recommended that all future turbine engines developed for Naval aircraft be required to pass a SMET based on the expected engine usage during peacetime.

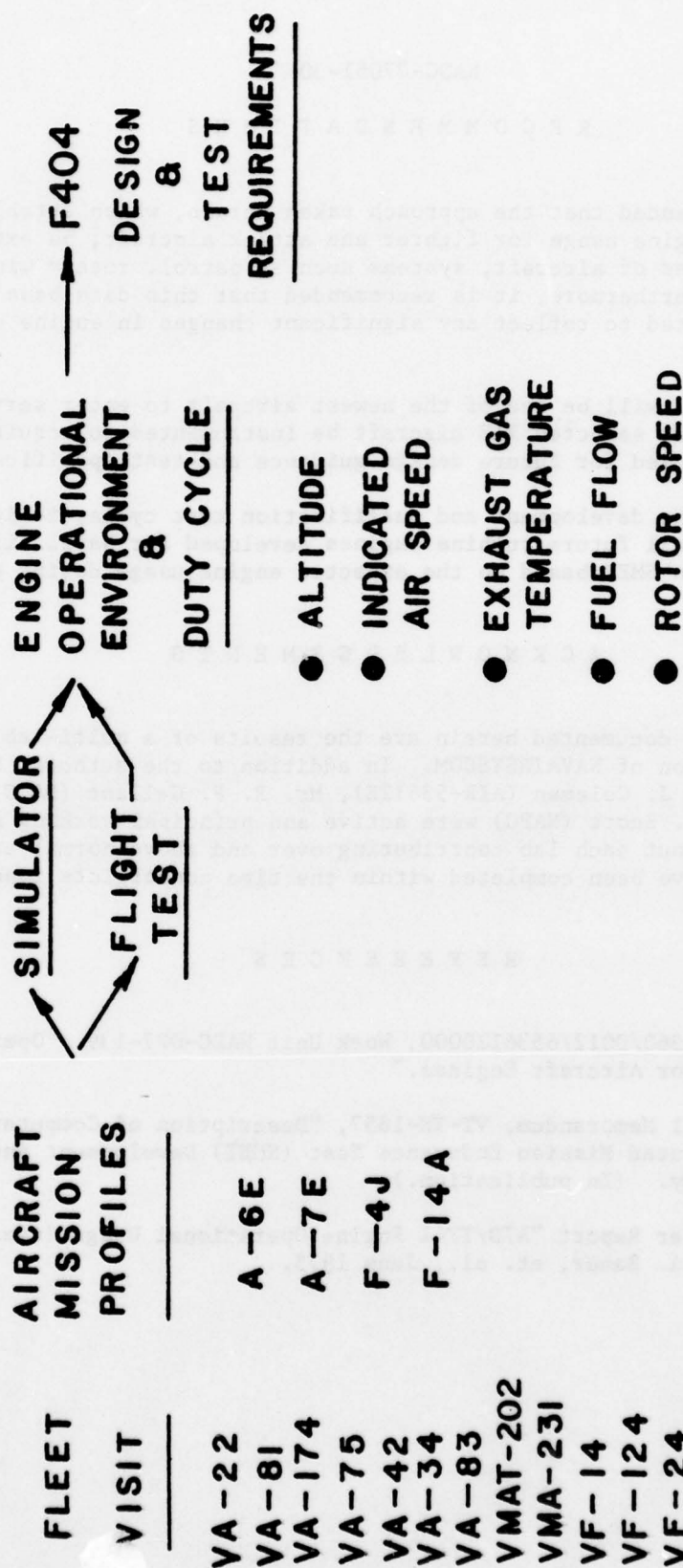
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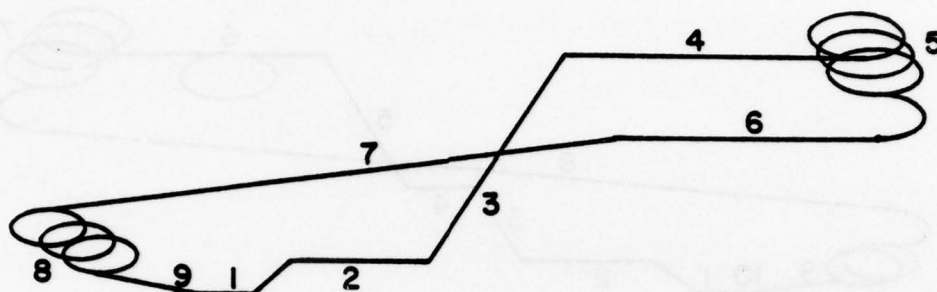
- (a) AIRTASK A5365360/0012/6536120000, Work Unit NADC-OP7-139, "Operational Environment for Aircraft Engines."
- (b) NADC Technical Memorandum, VT-TM-1857, "Description of Computer Codes for the Simulated Mission Endurance Test (SMET) Development and Analysis," by M. J. Caddy. (In publication.)
- (c) USAF TPS Letter Report "A7D/TF41 Engine Operational Usage Investigation," by Christian A. Bauer, et. al., June 1975.

APPROACH



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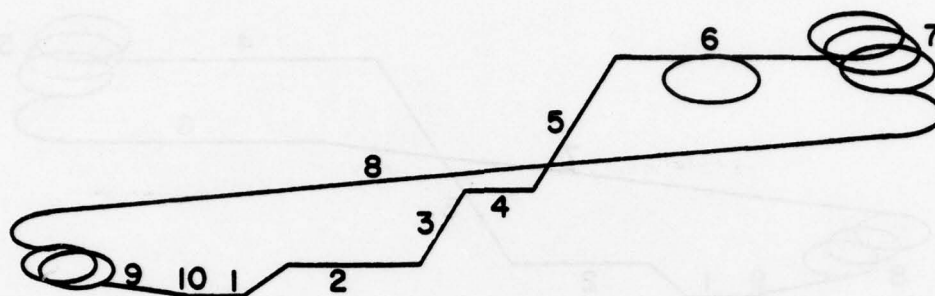
FIGURE 1. SNET APPROACH



1. Warmup for 20 minutes at idle power, military power check on each engine, catapult takeoff using max A/B power for 30 seconds.
2. Climb to 152 metres (500 feet) and accelerate to 180 metres/second (350 knots) for 13 kilometres (seven nautical miles).
3. Climb to 4572-6096 metres (15,000-20,000 feet) and leveloff to cruise velocity, 154 metres/second (309 knots).
4. Cruise out 111 kilometres (60 nautical miles).
5. Combat 15 minutes, max A/B for approximately 5 minutes, 154-257 metres/second (200-300 knots).
6. Cruise back to ship, 128-154 metres/second (250-300 knots).
7. Slow descent to 457 metres (1500 feet), 80 percent RPM.
8. Approach to an arrested landing.
9. Post flight idle 5 minutes.

Stores - Centerline tank, Sparrow and Sidewinder Missiles

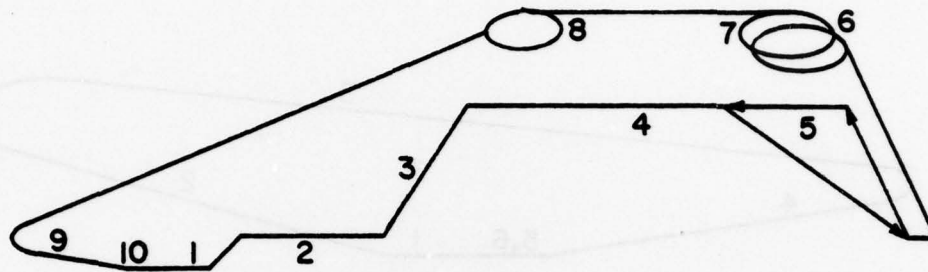
FIGURE 2. SHIPBOARD AIR COMBAT MANEUVER MISSION PROFILE



1. Warmup for 20 minutes, military power check on each engine, catapult takeoff using max A/B power.
2. Climb to 152 metres (500 feet) and accelerate to 180 metres/seconds (350 knots) for 13 kilometres (seven nautical miles).
3. Climb to 2286 metres (7500 feet) and level off at 128 metres/seconds (250 knots).
4. Refuel for 10 minutes while in cruise formation.
5. Climb to 6096 metres (20,000 feet) at military power.
6. Patrol for 30 minutes, then cruise to 28 kilometre (15 nautical miles) separation to begin intercept.
7. Combat for 45 minutes and 4-5 engagements at max conserve power.
8. Slow descent to ship, 10 minutes, marshall point (loiter) for additional 10 minutes at 128 metres/second (250 knots).
9. Final approach to an arrested landing.
10. Post flight idle 5 minutes.

Stores - Centerline tank, Sparrow and Sidewinder missiles.

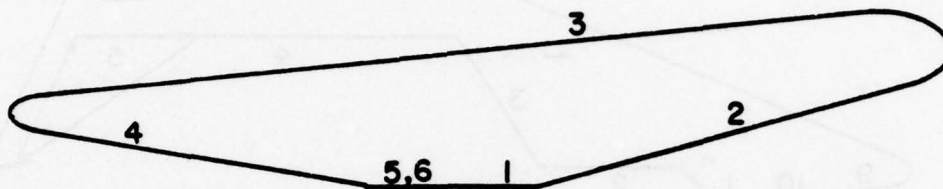
FIGURE 3. SHIPBOARD INTERCEPT/COMBAT AIR PATROL MISSION PROFILE



1. Warmup for 20 minutes, military power check on each engine, catapult takeoff using max A/B power.
2. Climb to 152 metres (500 feet) and accelerate to 180 metres/seconds (350 knots) for 13 kilometres (seven nautical miles).
3. Climb to 6096 metres (20,000 feet) at military power and level off at 180 metres/seconds (350 knots).
4. Cruise out to radius-of-action, 10-15 minutes in combat information.
5. Ground attack - 3 or 4 runs on target at speeds 154-257 metres/second (300-500 knots) between 914-3657 metres (3000-12,000 feet).
6. Cruise to 28 kilometres (15 nautical miles) separation at max conserve power.
7. Combat for 20 minutes, several max conserve intercepts.
8. Refuel for 10 minutes and begin descent to ship.
9. Automatic carrier landing approach to an arrested landing.
10. Post flight idle 5 minutes.

Stores - Centerline tank

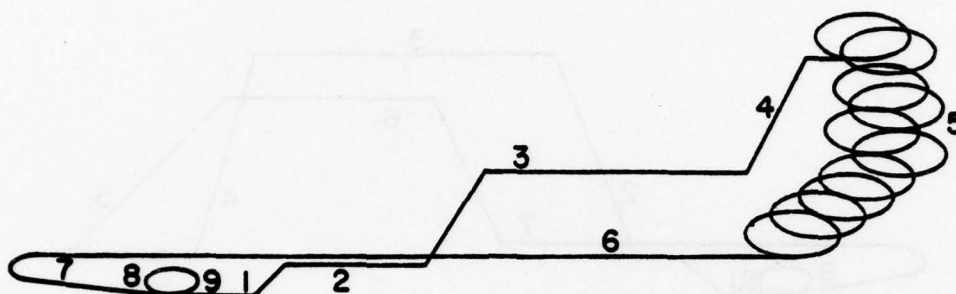
FIGURE 4. SHIPBOARD CONVENTIONAL WEAPONS MISSION PROFILE



1. Warmup for 10 minutes at idle power, military power check on each engine prior to takeoff at military power.
2. Climb to 183 metres (600 feet) and turn downwind.
3. Cruise for 3 minutes at 85 percent RPM.
4. Begin descent and approach using power required.
5. Touch and go 5-9 times and land to hot refuel.
6. Repeat legs 2-5 for a total of 12-18 touch and go landing practices.

Stores - Centerline tank

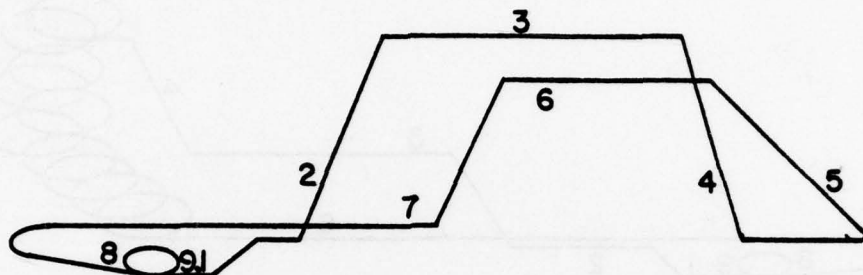
FIGURE 5. SHOREBASED FIELD CARRIER LANDING PRACTICE MISSION PROFILE



1. Warmup for 10 minutes at idle power, military power check on each engine prior to takeoff at max A/B.
2. Climb to 305 metres (1,000 feet) at military power, retard throttle to 90 percent RPM and proceed to 1219 metres (4,000 feet). Select military and climb to 4572 metres (15,000 feet).
3. Cruise out at 154 metres/seconds (300 knots) in parade formation for 10 minutes.
4. Climb to 9144 metres (30,000 feet) at military power.
5. Demonstration of aircraft performance, for 20-30 minutes over range of velocity and altitude.
6. Cruise back at 1219 metres (4000 feet), 85 percent RPM.
7. Instrument approach to wave off followed by ground controlled approach.
8. Touch and go (5-9 times or as many as remaining fuel will permit).
9. Land and post flight idle 5 minutes.

Stores - Centerline tank, two missile racks

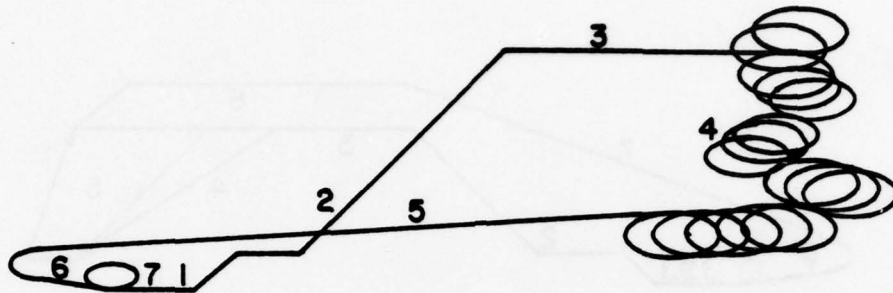
FIGURE 6. SHOREBASED FAMILIARIZATION MISSION PROFILE



1. Warmup for 10 minutes at idle power, military power check on each engine prior to takeoff at max A/B power.
2. Climb to 305 metres (1000 feet) at military power, retard throttle to 90 percent RPM and proceed to 1219 metres (4000 feet). Select military and climb to 6705-10058 metres (22,000-33,000 feet).
3. Cruise out 25 minutes at 180 metres/second (350 knots) .
4. Attack with instrument approach, 80 percent RPM, 136 metres/second (265 knots) on descent to penetration altitude and set flaps.
5. Climb to 7620 metres (25,000 feet) at military power.
6. Cruise back to base for 10-15 minutes at 87 percent RPM.
7. Attack and instrument approach to a ground controlled approach.
8. Touch and go 2-3 times.
9. Land and post flight idle 5 minutes.

Stores - None

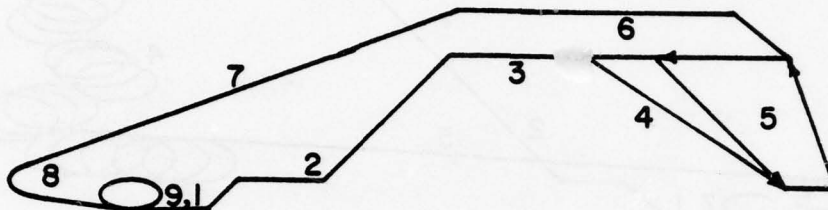
FIGURE 7. SHOREBASED INSTRUMENT MISSION PROFILE



1. Warmup for 10 minutes at idle power, military power check on each engine prior to takeoff at max A/B power.
2. Climb to 305 metres (1000 feet) at military power, retard throttle to 90 percent RPM and proceed to 1219 metres (4000 feet). Select military power and climb to 4572 metres (15,000 feet).
3. Cruise to radius of action at 154 metres/second (300 knots), 10 minutes.
4. Combat for 30 minutes, 3 engagements to include basic aircraft maneuvers, offensive and defensive tactics, approximately one-third of combat uses max A/B power.
5. Enroute descent to 610 metres (2000 feet).
6. Ground controlled approach to touch and go 4-6 times.
7. Final approach to land post flight idle 5 minutes.

Stores - None

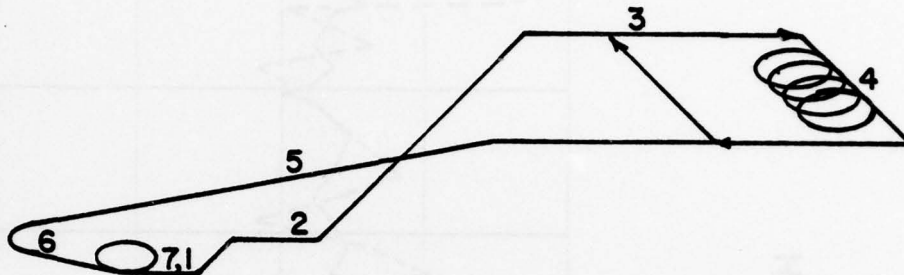
FIGURE 8. SHOREBASED AIR COMBAT MANEUVER MISSION PROFILE



1. Warmup to 10 minutes at idle power, military power check on each engine prior to takeoff at max A/B power.
2. Climb to 305 metres (1000 feet) at military power, retard throttle to 90 percent RPM and proceed to 1219 metres (4000 feet). Select military power and climb to 4572 metres (15,000 feet).
3. Cruise to bombing range, 10 minutes at 80 percent.
4. Slow descent to 1524 metres (5000 feet) for 5 minutes.
5. Attack - 8-10 runs on target, 1524-3657 metres (5000-12,000 feet), idle descent to ordnance release followed by a military power climb to perch altitude.
6. Cruise in formation 3657 metres (12,000 feet) for 10-15 minutes.
7. Enroute descend to 1372 metres (4500 feet).
8. Descend to 457 metres (1500 feet) for ground controlled approach to touch and go 3-5 times.
9. Land and post flight idle 5 minutes.

Stores - Centerline tank, 6 practice bombs

FIGURE 9. SHOREBASED CONVENTIONAL WEAPONS MISSION PROFILE



1. Warmup for 10 minutes at idle power, military power check on each engine prior to takeoff at max A/B power.
2. Climb to 305 metres (1000 feet) at military power, retard throttle to 90 percent RPM and proceed to 1219 metres (4000 feet). Select military power and continue to 4572 metres (15,000 feet).
3. Cruise to 93 kilometre (50 nautical mile) separation at 154 metres/second (300 knots).
4. Combat - Intercept run is practiced 4 times followed by evasive maneuvering and breakoff to reset. Full range of power required.
5. Enroute descent to 457 metres (1500 feet), 15-20 minutes at 85 percent RPM.
6. Ground controlled approach to touch and go 3-5 times.
7. Land and post flight idle for 5 minutes.

Stores - Centerline tank, Racks and practice missile

FIGURE 10. SHOREBASED INTERCEPT MISSION PROFILES

F4J GROUND CONTROLLED APPROACH

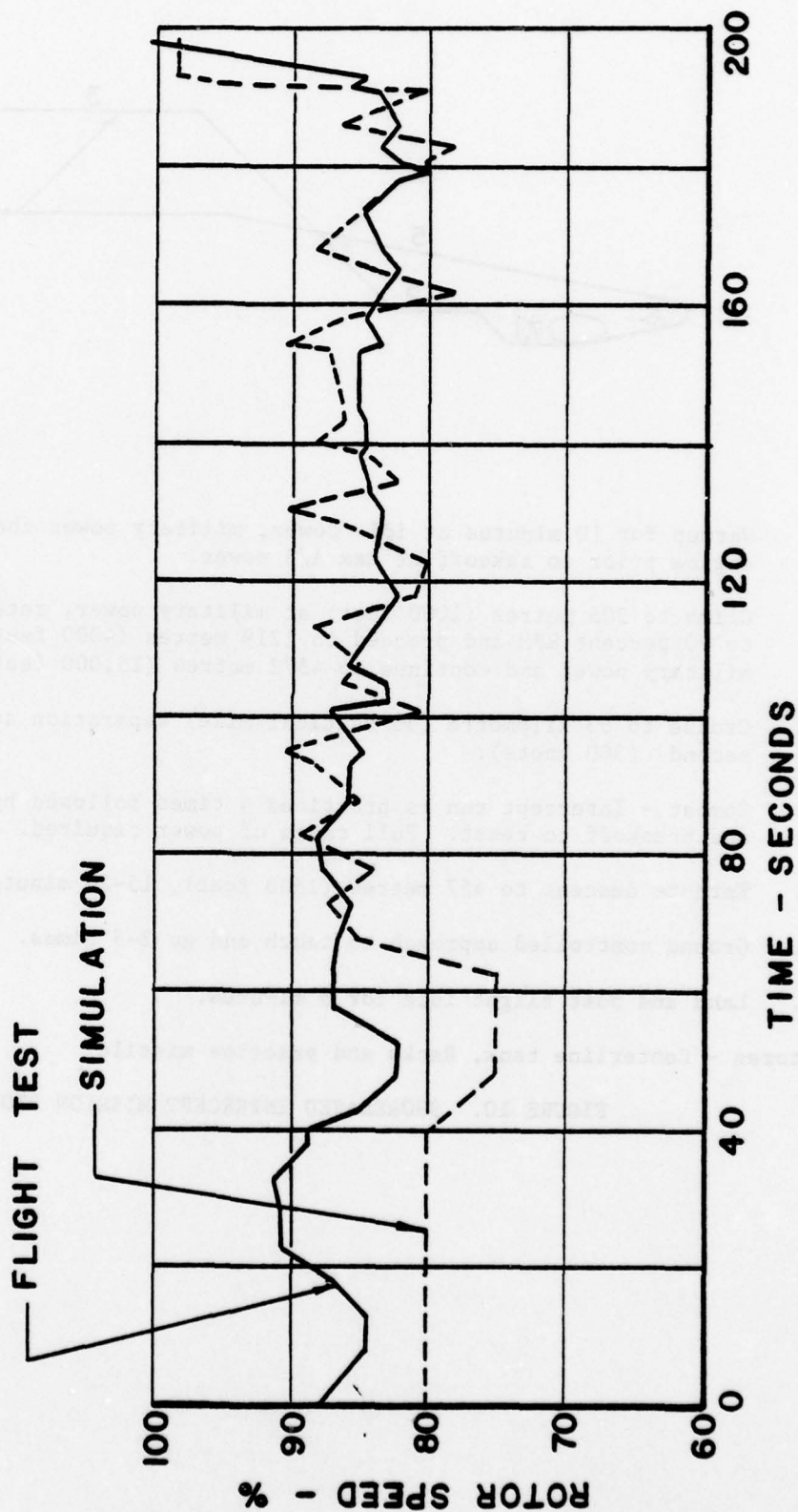


FIGURE 11. F4J DATA COMPARISON

F-4J 35° DIVE BOMB

NADC-77051-30



FIGURE 12. F4J DATA COMPARISON

MISSION PROFILE DATA DECK

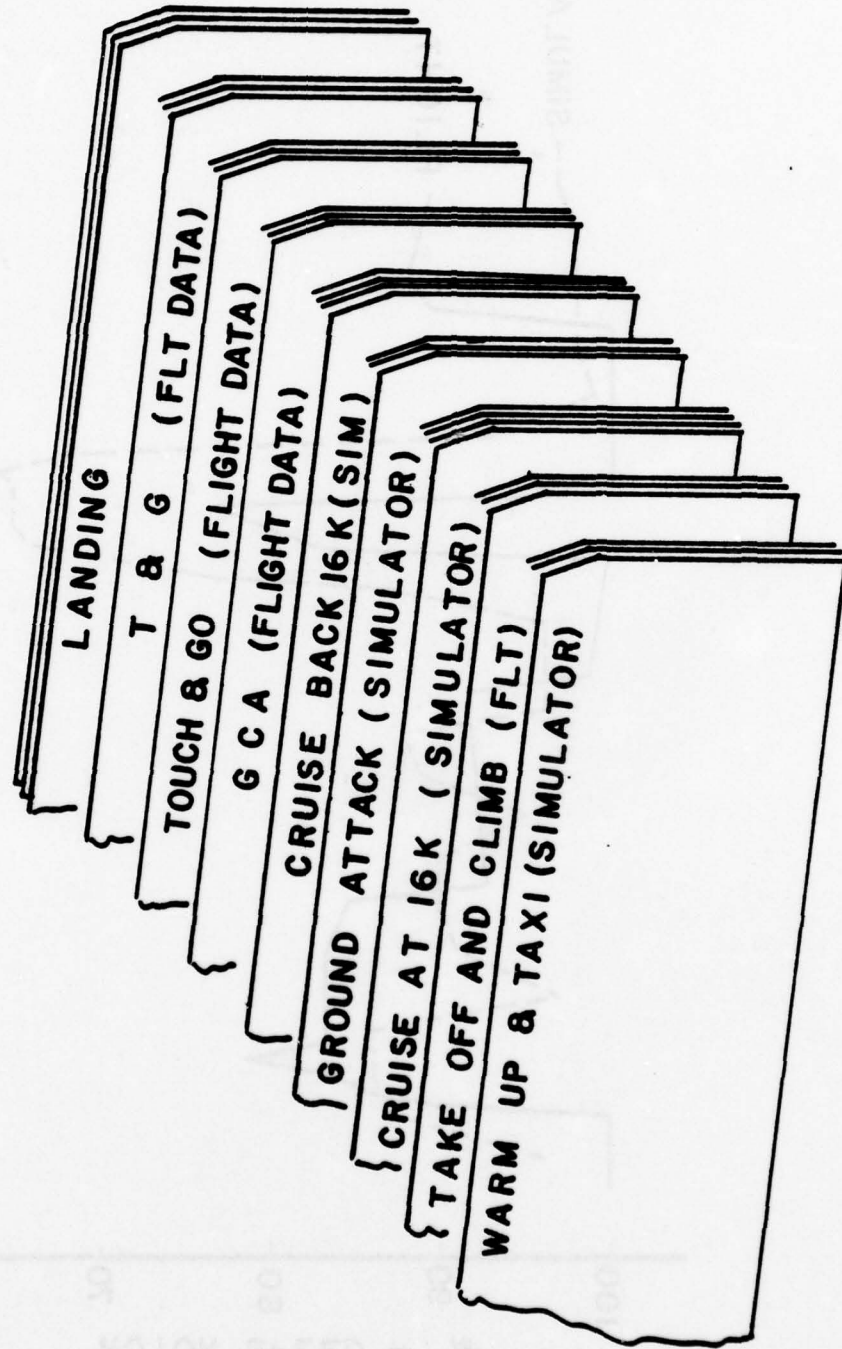


FIGURE 13. REPRESENTATIVE MISSION PROFILE COMPUTER DECK

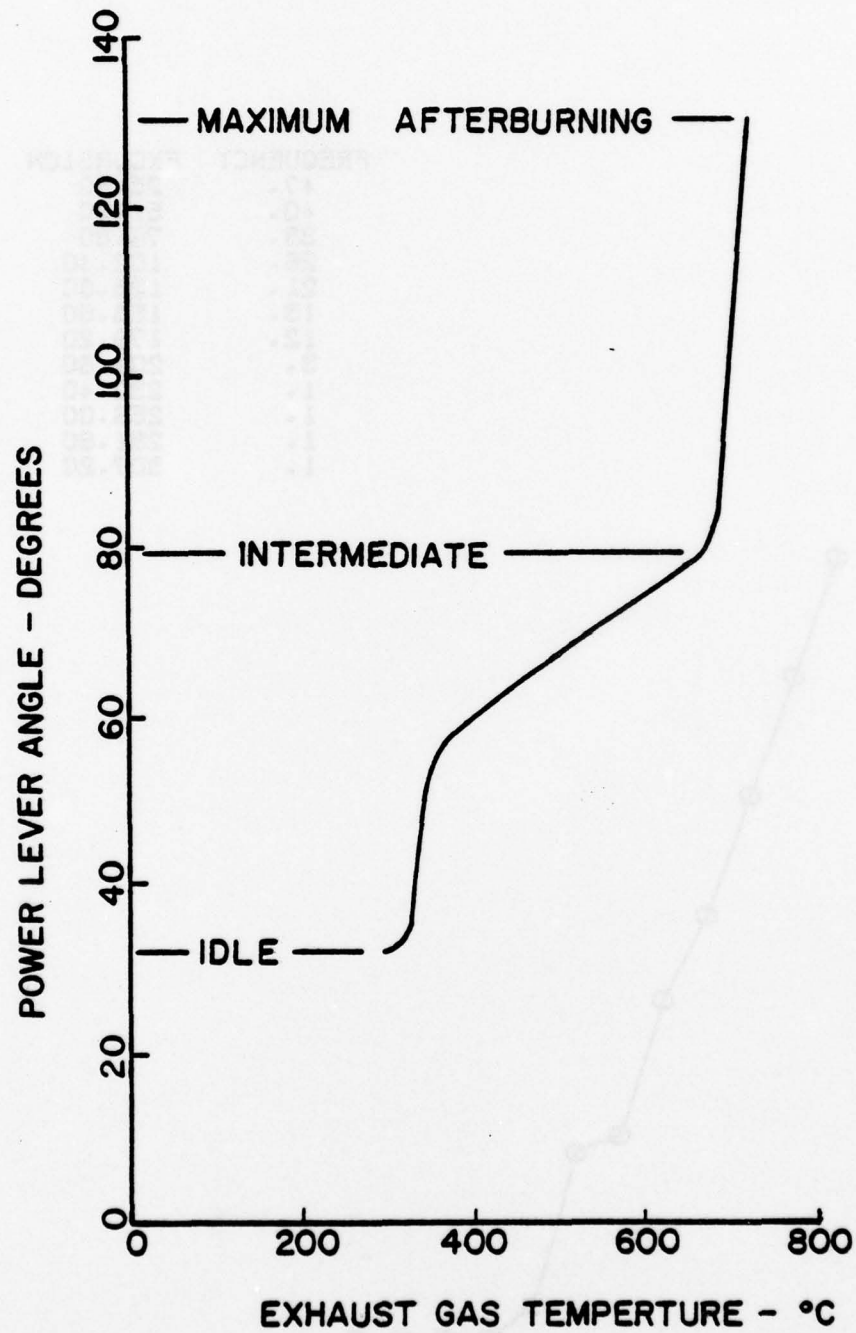


FIGURE 14. F404 POWER LEVER ANGLE RELATIONSHIP

SIMULATED F4J SHIPBOARD AIR COMBAT MANEUVER MISSION

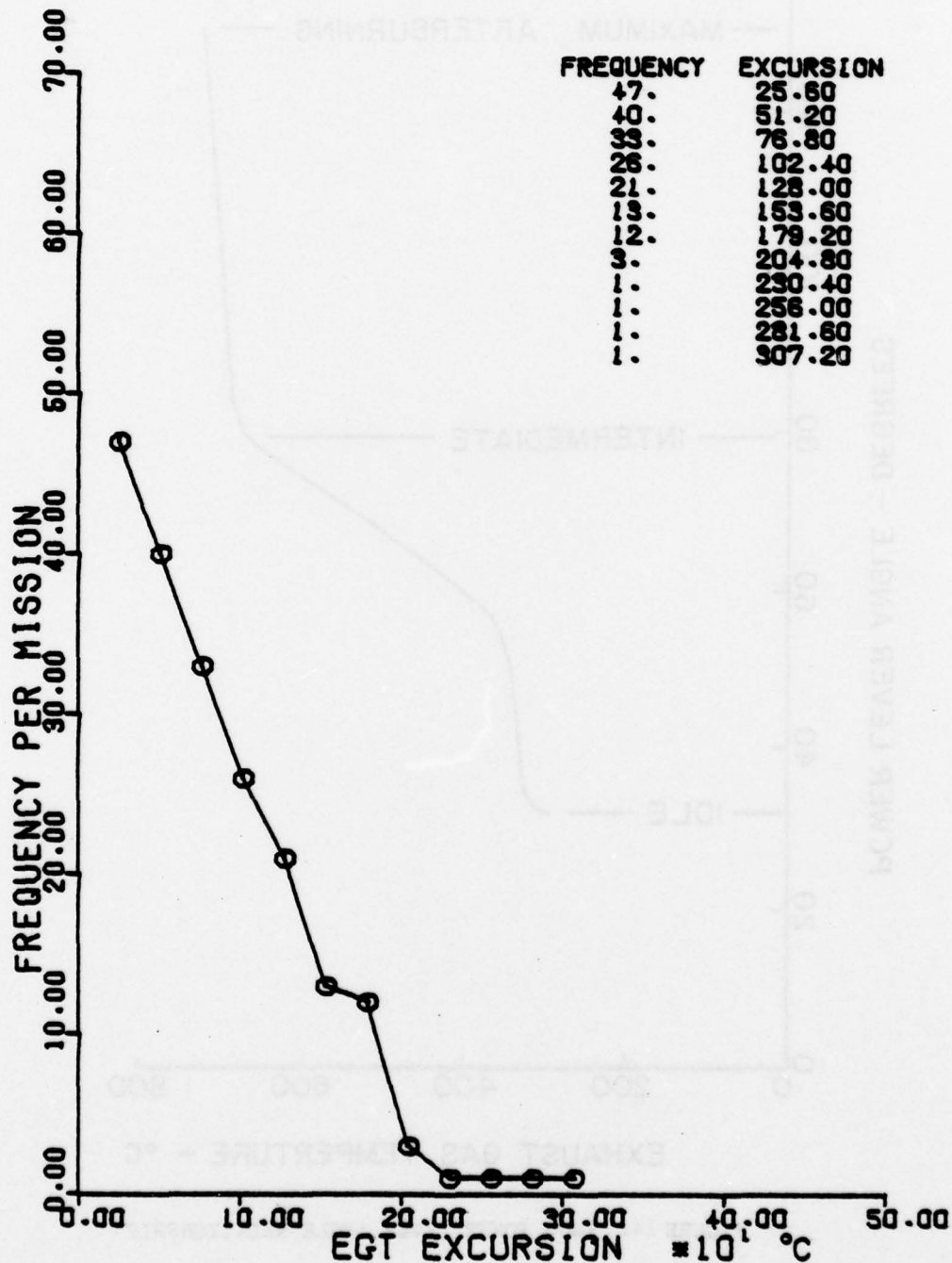


FIGURE 15. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHIPBOARD AIR COMBAT MANEUVER MISSION

SIMULATED F4J SHIPBOARD INTERCEPT/COMBAT AIR PATROL MISSION

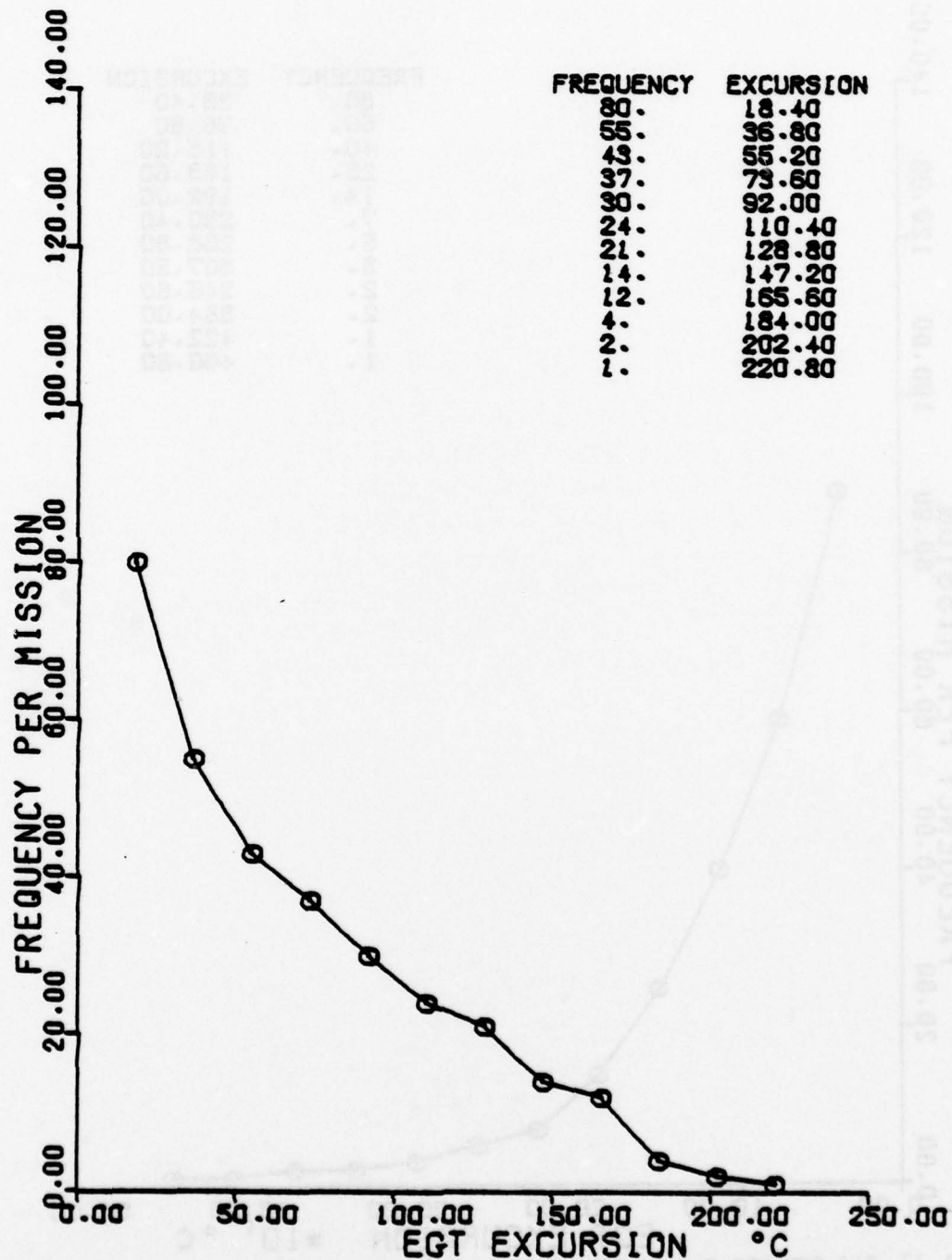


FIGURE 16. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHIPBOARD INTERCEPT/COMBAT AIR PATROL MISSION

NADC-77051-30
SIMULATED F4J SHIPBOARD CONVENTIONAL
WEAPONS MISSION

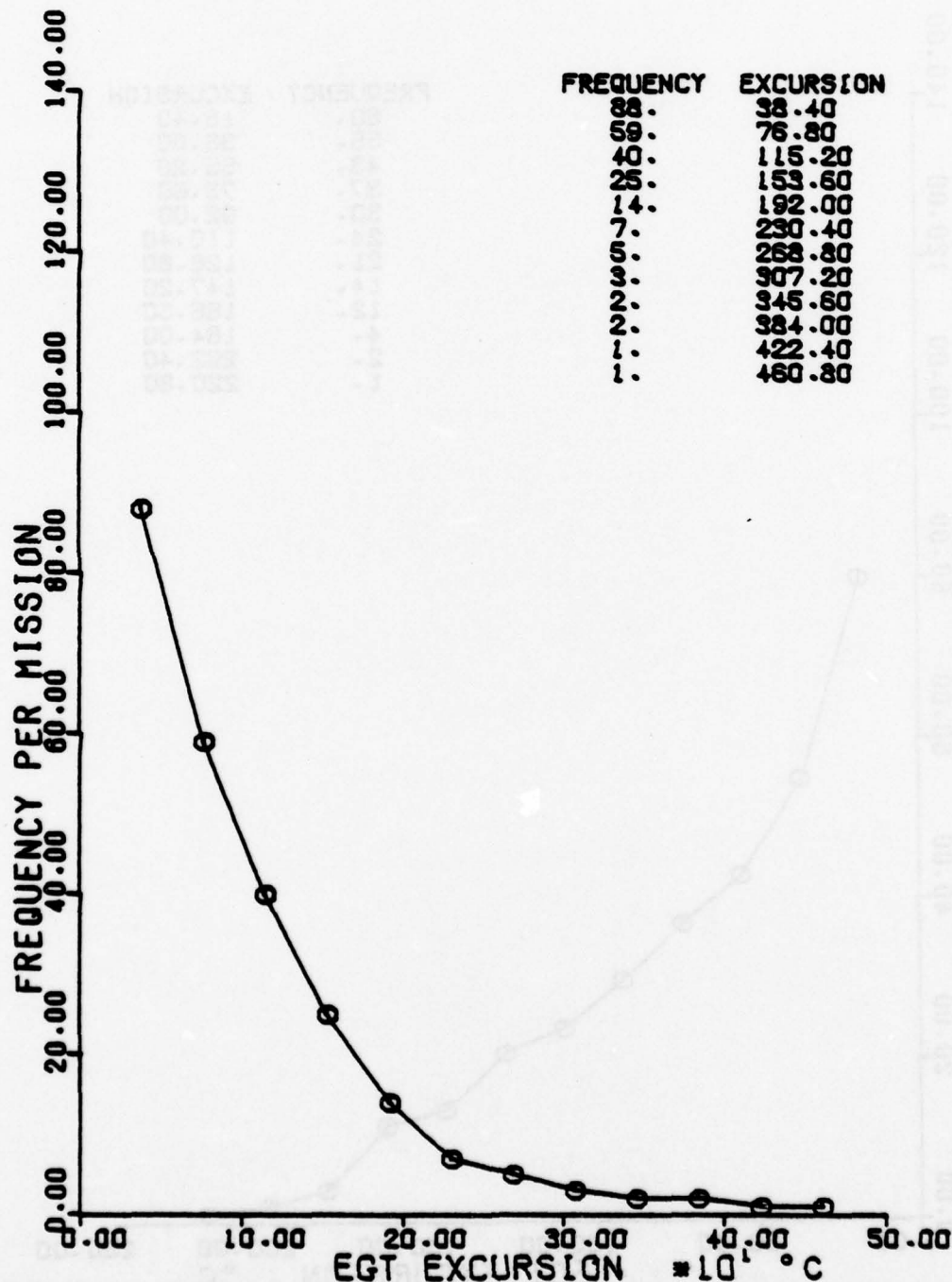


FIGURE 17. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHIPBOARD CONVENTIONAL WEAPONS MISSION

SIMULATED F4J SHOREBASED FIELD CARRIER LANDING PRACTICE MISSION

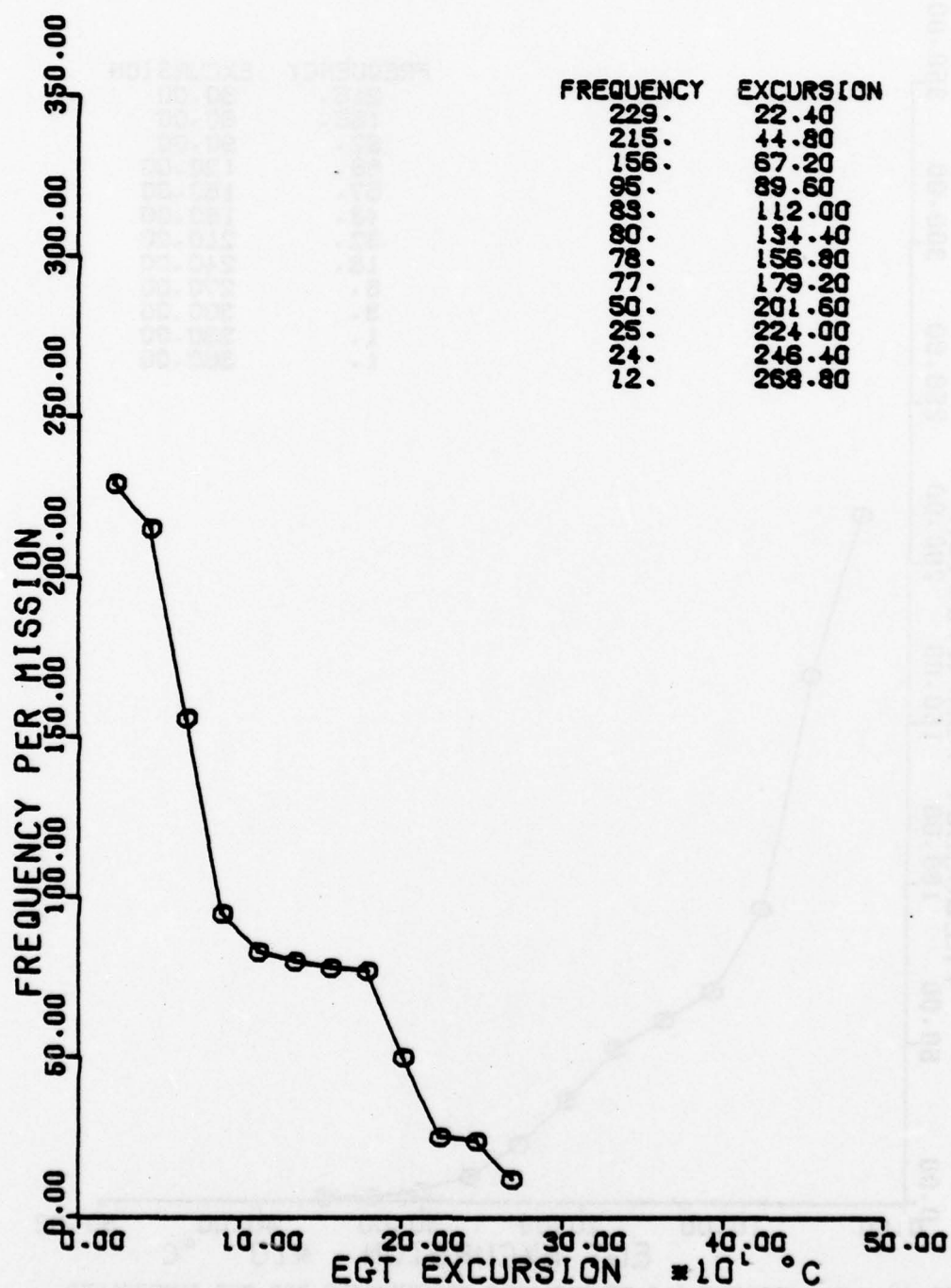


FIGURE 18. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHOREBASED FIELD CARRIER LANDING PRACTICE MISSION

SIMULATED F4J SHOREBASED FAMILIARIZATION MISSION

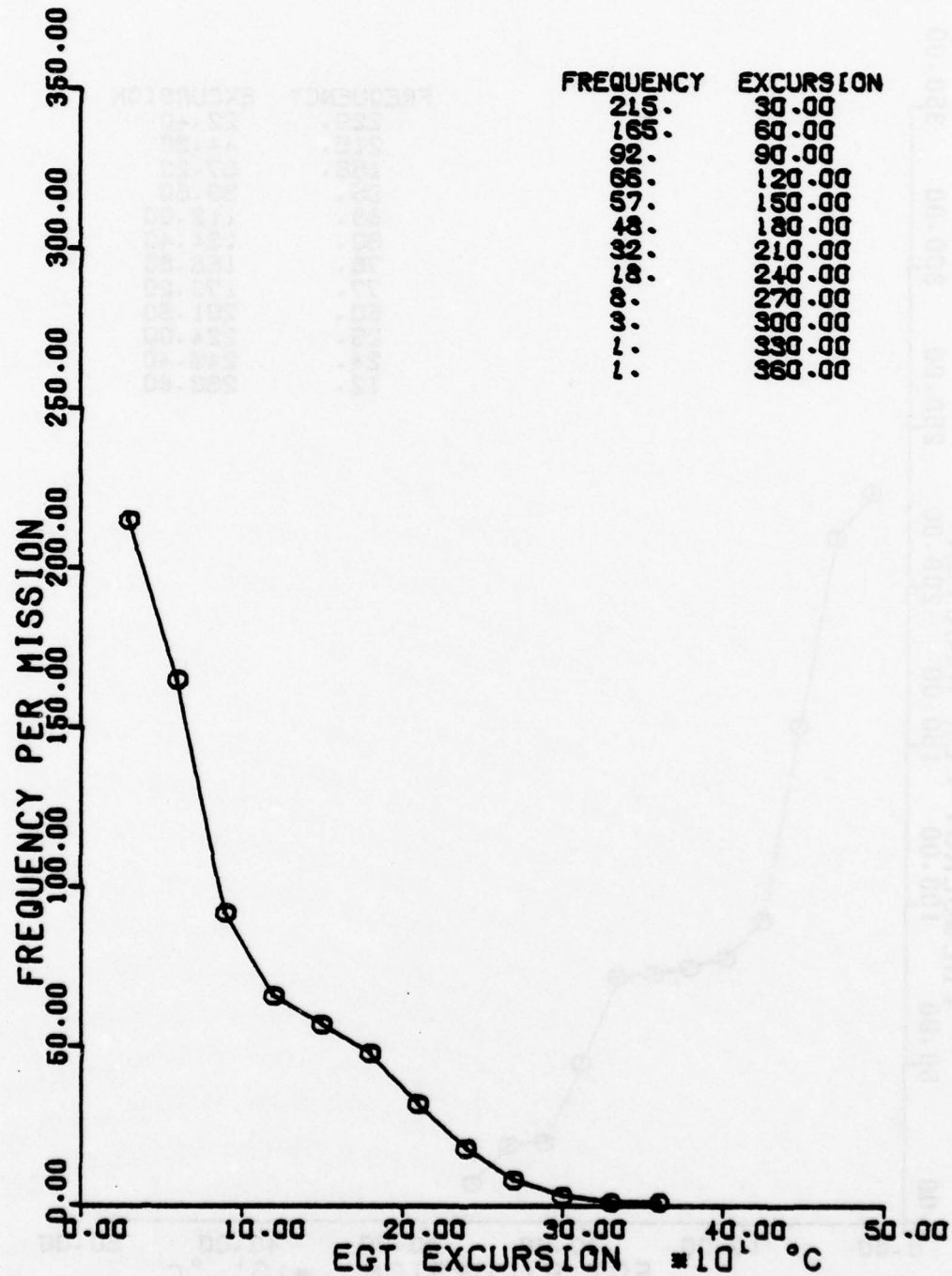


FIGURE 19. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHOREBASED FAMILIARIZATION MISSION

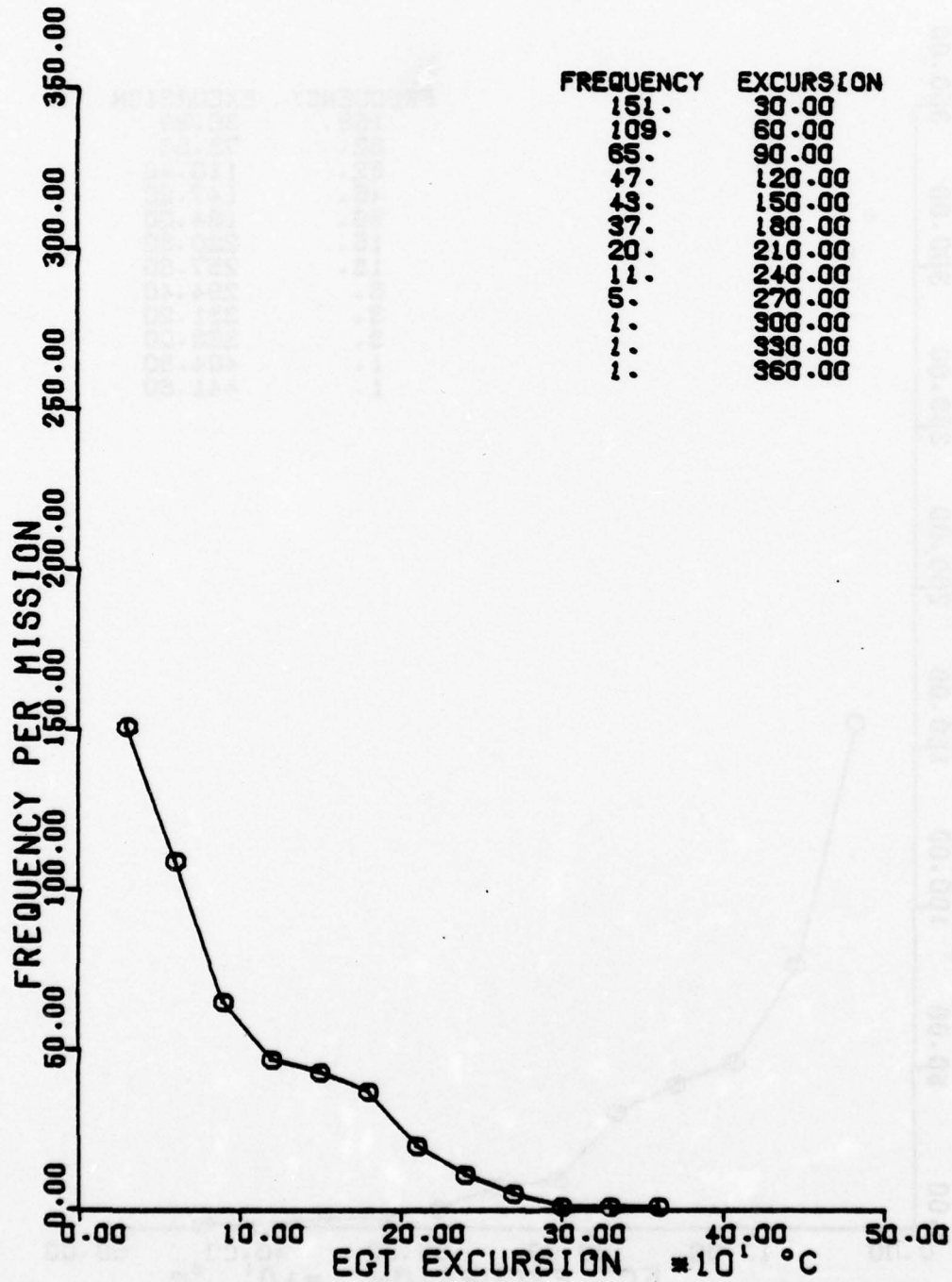
SIMULATED F4J SHOREBASED INSTRUMENT
MISSION

FIGURE 20. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHOREBASED INSTRUMENT MISSION

SIMULATED F4J SHOREBASED TACTICS(ACM) MISSION

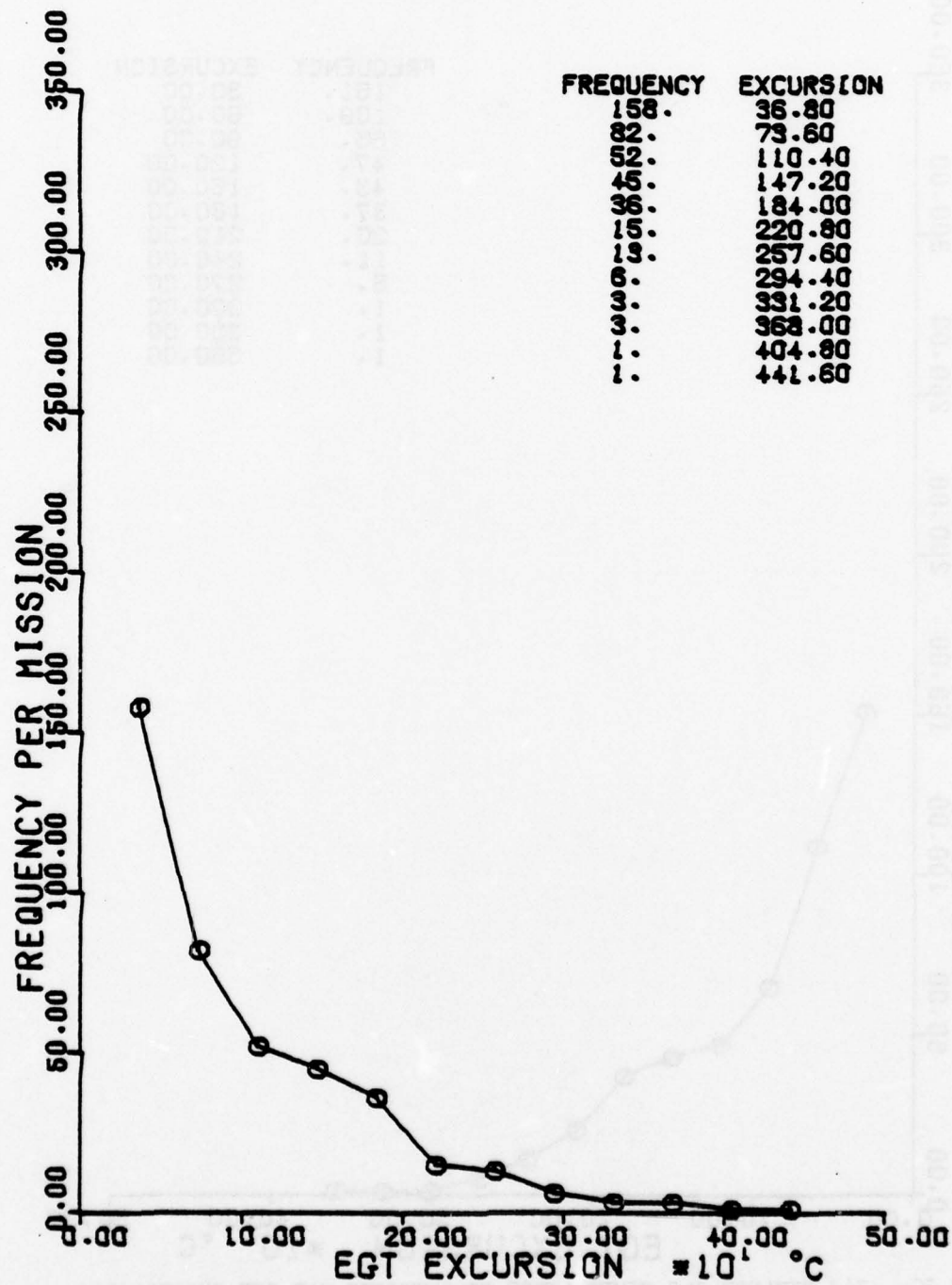


FIGURE 21. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHOREBASED TACTICS MISSION

SIMULATED F4J CONVENTIONAL WEAPONS MISSION PROFILE

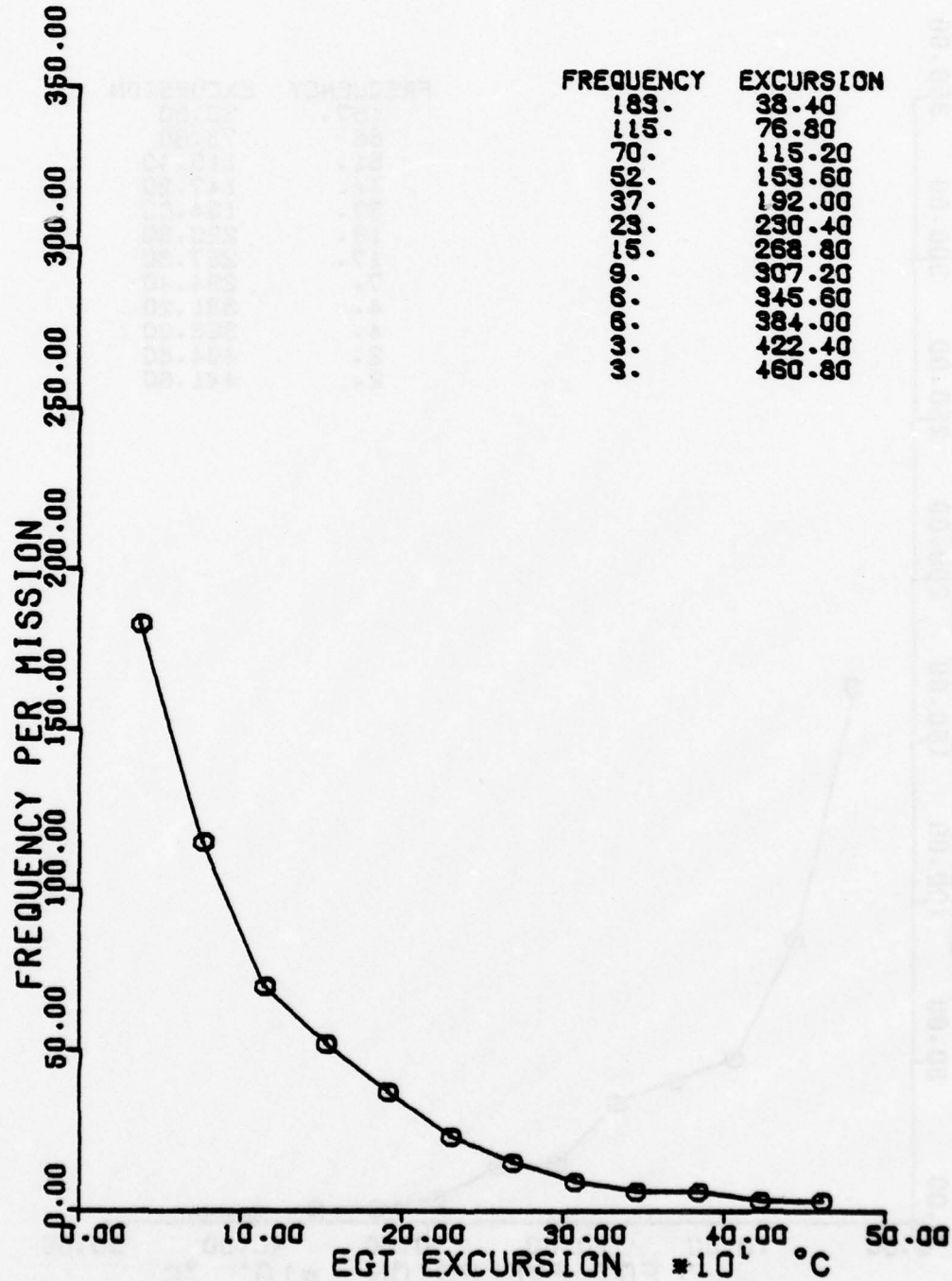


FIGURE 22. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHOREBASED
CONVENTIONAL WEAPONS MISSION

SIMULATED F4J SHOREBASED FIGHTER INTERCEPT MISSION PROFILE

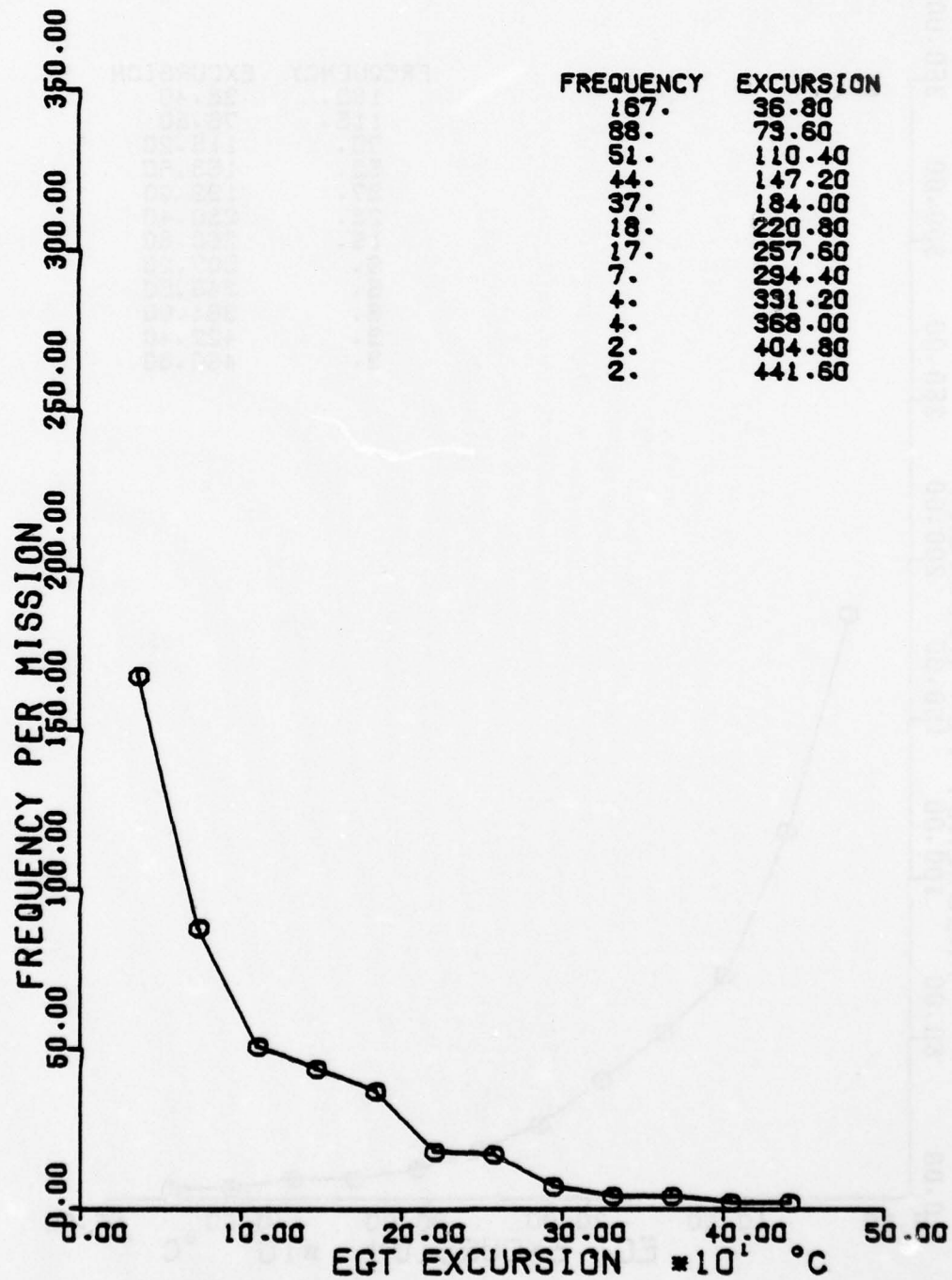


FIGURE 23. F4J EXHAUST GAS TEMPERATURE FREQUENCIES FOR THE SHOREBASED FIGHTER INTERCEPT MISSION

NAAC-77051-30

F404-GE-400 DUTY TEST CYCLE #1

TOTAL MISSION TIME = 46.35 MIN
PLA(MAX) = 79.00

PLA/PLA(MAX) SUMMARY

PLA/PLA(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	0.00	9.41	10.13	0.19	1.60	2.30	20.17	2.55

PLA/PLA(MAX) FINAL POSITION

	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
0<10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10<20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20<30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30<40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40<50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
50<60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60<70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70<80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80<90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90-100	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
R/B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

PLA/PLA(MAX) INITIAL POSITION

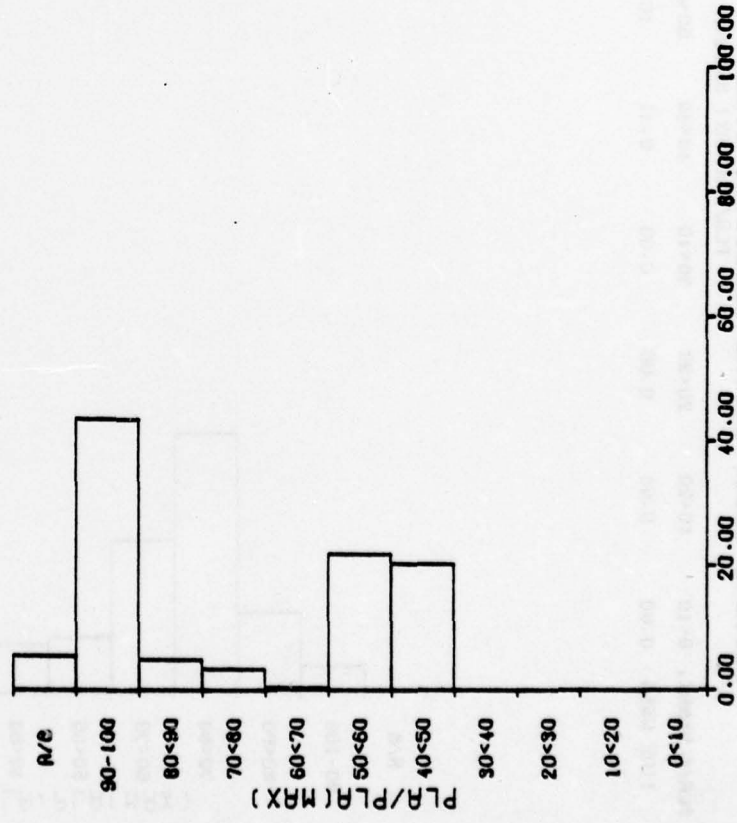


FIGURE 24. F404 TEST CYCLE #1 THROTTLE POSITION SUMMARY

F404-GE-400 DUTY TEST CYCLE #2

TOTAL MISSION TIME = 121.68 MIN
PLR(MAX) = 79.00

PLR/PLR(MAX) SUMMARY

PLR/PLR(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	0.00	9.41	10.80	29.61	50.50	15.43	5.20	0.73

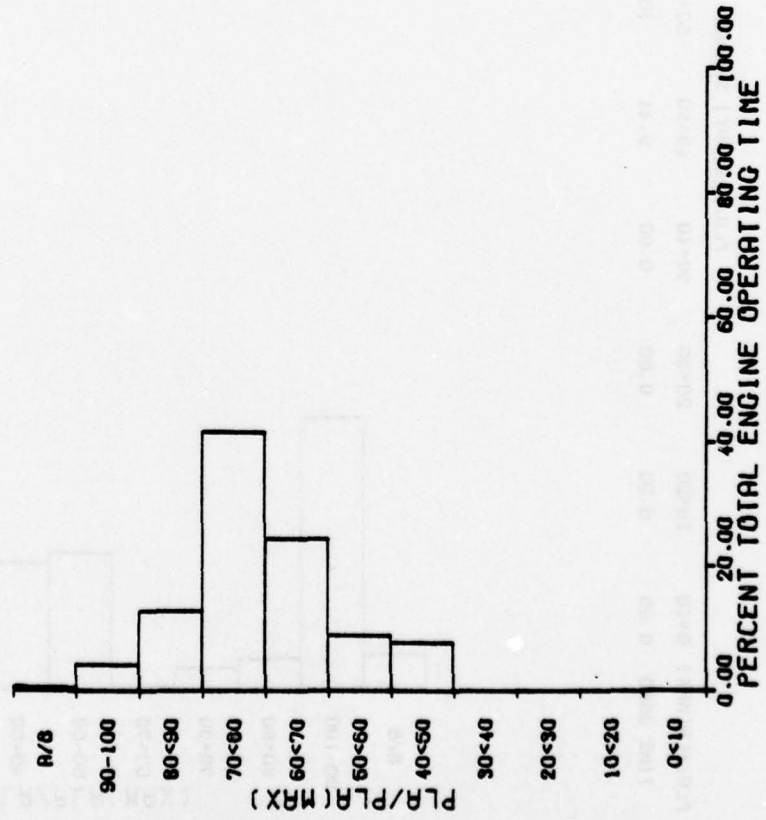


FIGURE 25. F404 TEST CYCLE 2 THROTTLE POSITION SUMMARY

PLR/PLR(MAX) INITIAL POSITION	PLR/PLR(MAX) FINAL POSITION										
	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
0<10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10<20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20<30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30<40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40<50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	1.0
50<60	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.0	1.0	0.0	0.0
60<70	0.0	0.0	0.0	0.0	0.0	1.0	6.0	0.0	2.0	0.0	0.0
70<80	0.0	0.0	0.0	0.0	0.0	1.0	2.0	6.0	14.0	7.0	2.0
80<90	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0	8.0	11.0	3.0
90-100	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	1.0	3.0	2.0
R/B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0

F404-GE-400 DUTY TEST CYCLE #3

TOTAL MISSION TIME = 99.32 MIN
PLA(MAX) = 79.00

PLA/PLA(MAX) SUMMARY

PLA/PLA(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	0.73	9.49	15.65	23.21	22.51	4.88	22.12	0.72

PLA/PLA(MAX) FINAL POSITION

	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
0<10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10<20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20<30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30<40	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.
40<50	0.	0.	0.	0.	0.	0.	0.	2.	0.	1.	1.
50<60	0.	0.	0.	0.	0.	0.	3.	2.	2.	0.	0.
60<70	0.	0.	0.	0.	1.	4.	2.	5.	4.	0.	0.
70<80	0.	0.	0.	2.	1.	3.	7.	15.	9.	3.	0.
80<90	0.	0.	0.	1.	1.	0.	2.	9.	16.	9.	0.
90-100	0.	0.	0.	0.	1.	0.	2.	6.	6.	11.	0.
R/B	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.

PLA/PLA(MAX) INITIAL POSITION

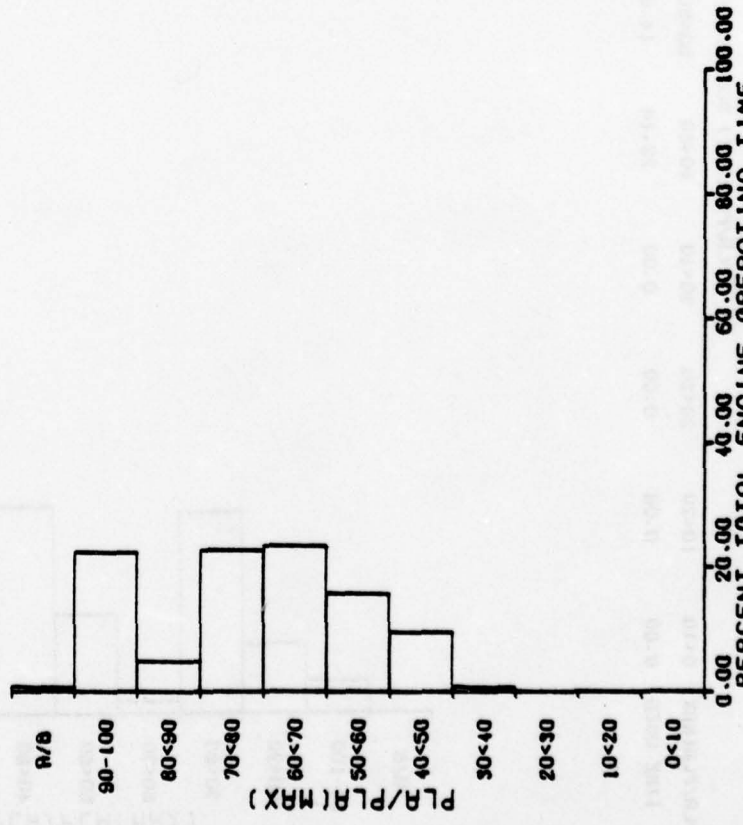


FIGURE 26. F404 TEST CYCLE 3 THROTTLE POSITION SUMMARY

F404-GE-400 DUTY TEST CYCLE #4

WADC-77051-30

TOTAL MISSION TIME = 87.67 MIN
PLR(MAX) = 79.00

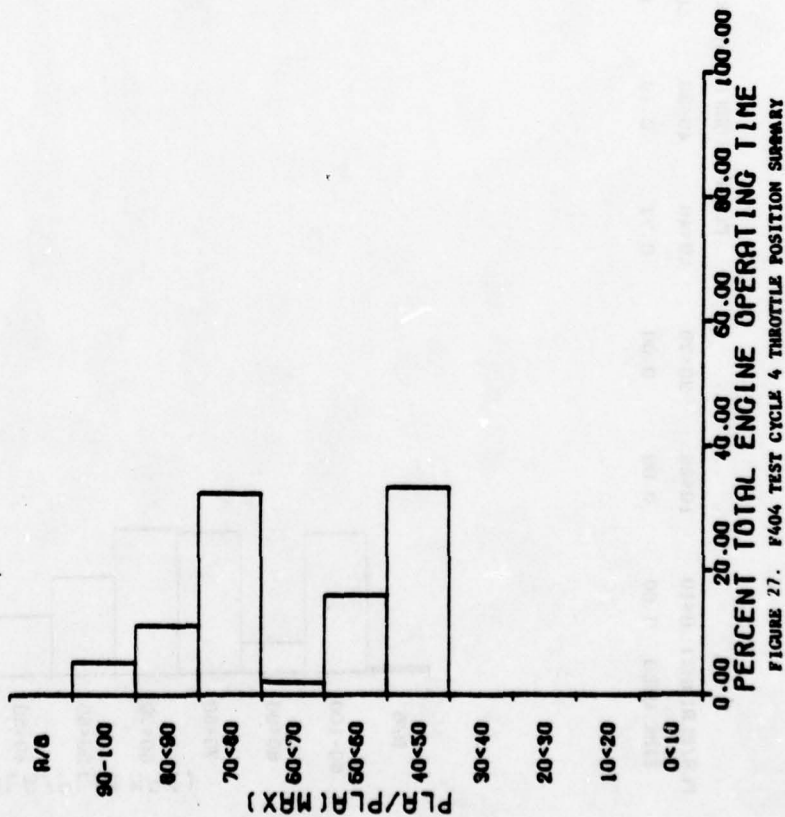
PLR/PLR(MAX) SUMMARY

PLR/PLR(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	0.00	29.16	14.04	1.76	28.29	9.79	4.60	0.00

PLR/PLR(MAX) FINAL POSITION

	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
0<10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10<20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20<30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30<40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40<50	0.	0.	0.	0.	0.	0.	1.	4.	13.	1.	0.
50<60	0.	0.	0.	0.	0.	0.	0.	24.	13.	0.	0.
60<70	0.	0.	0.	0.	1.	1.	0.	12.	12.	1.	0.
70<80	0.	0.	0.	0.	5.	36.	1.	13.	12.	0.	0.
80<90	0.	0.	0.	0.	12.	0.	13.	14.	14.	12.	0.
90-100	0.	0.	0.	0.	1.	0.	12.	0.	1.	25.	0.
R/B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

PLR/PLR(MAX) INITIAL POSITION



F404-GE-400 DUTY TEST CYCLE #5

TOTAL MISSION TIME = 162.73 MIN
PLA(MAX) = 79.00

PLA/PLA(MAX) SUMMARY

PLA/PLA(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	0.35	30.48	17.86	3.06	54.53	25.11	24.41	6.92

PLA/PLA(MAX) FINAL POSITION

	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
0<10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10<20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20<30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30<40	0.	0.	0.	0.	2.	0.	0.	0.	1.	0.	0.
40<50	0.	0.	0.	0.	1.	0.	1.	9.	10.	2.	0.
50<60	0.	0.	0.	0.	4.	3.	1.	11.	6.	1.	0.
60<70	0.	0.	0.	0.	2.	2.	0.	7.	5.	0.	0.
70<80	0.	0.	0.	2.	8.	16.	4.	37.	27.	0.	0.
80<90	0.	0.	0.	0.	5.	2.	6.	26.	32.	9.	4.
90-100	0.	0.	0.	1.	1.	1.	4.	3.	3.	21.	2.
R/B	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	2.

PLA/PLA(MAX) INITIAL POSITION

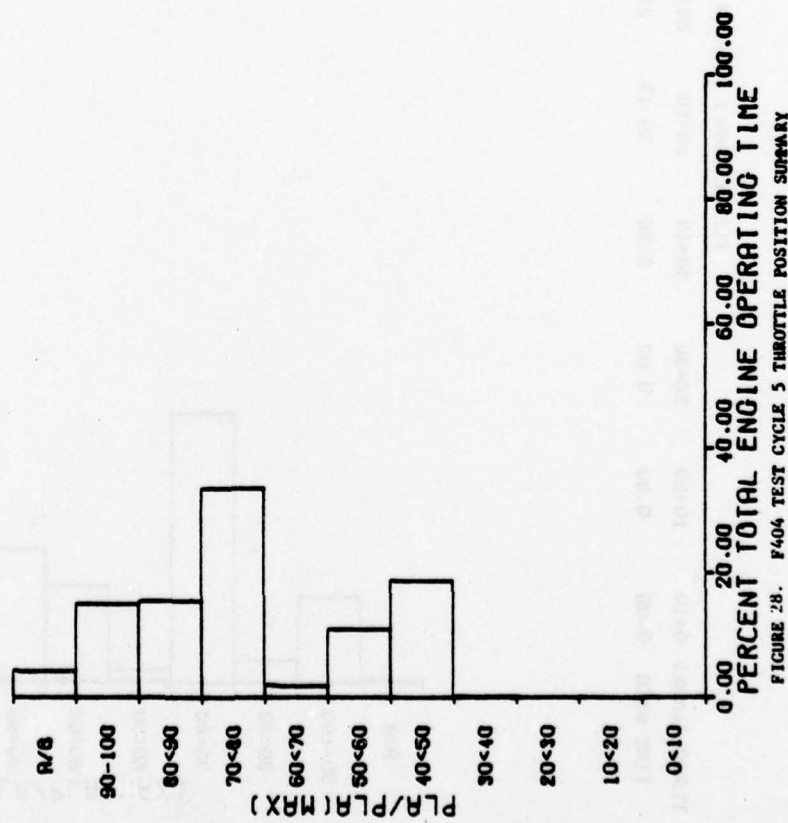


FIGURE 28. F404 TEST CYCLE 5 THROTTLE POSITION SUMMARY

NAME: 77051-10

F404-GE-400 DUTY TEST CYCLE #6

TOTAL MISSION TIME = 141.32 MIN
PLA(MAX) = 79.00

PLA/PLA(MAX) SUMMARY

PLA/PLA(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	0.36	30.13	21.86	2.93	61.08	5.11	19.23	0.62

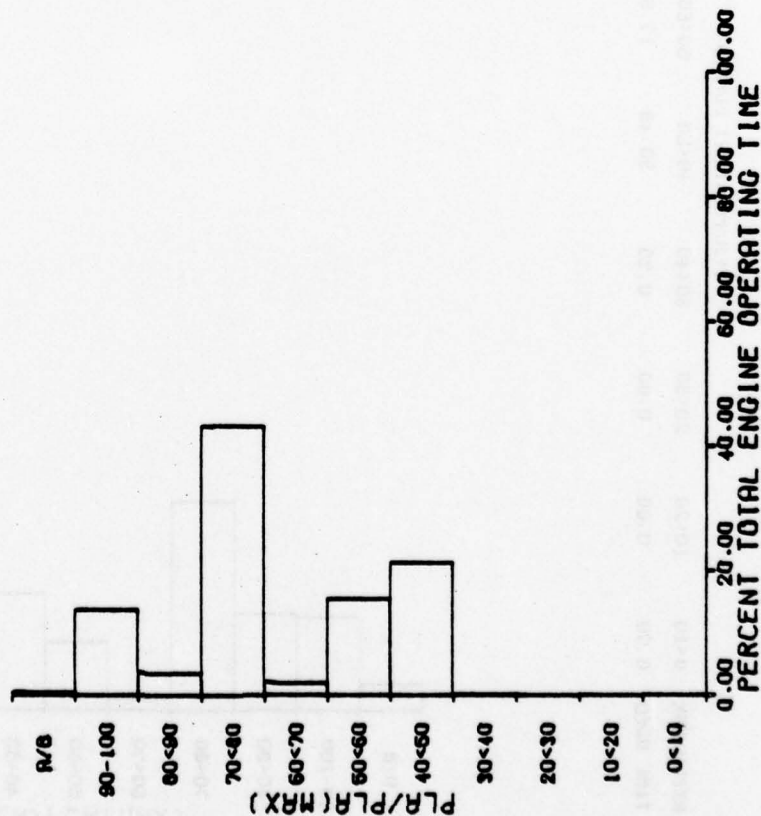


FIGURE 29. F404 TEST CYCLE 6 THROTTLE POSITION SUMMARY

PLA/PLA(MAX) INITIAL POSITION	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
PLA/PLA(MAX) FINAL POSITION	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
0<10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10<20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20<30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30<40	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0
40<50	0.0	0.0	0.0	0.0	1.0	0.0	1.0	7.0	9.0	1.0	1.0
50<60	0.0	0.0	0.0	0.0	4.0	3.0	10.0	5.0	0.0	0.0	0.0
60<70	0.0	0.0	0.0	0.0	2.0	0.0	8.0	3.0	0.0	0.0	0.0
70<80	0.0	0.0	0.0	2.0	6.0	18.0	3.0	19.0	12.0	1.0	0.0
80<90	0.0	0.0	0.0	0.0	4.0	2.0	5.0	15.0	13.0	5.0	0.0
90-100	0.0	0.0	0.0	1.0	1.0	0.0	3.0	2.0	1.0	17.0	0.0
R/B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0

F404-GE-400 DUTY TEST CYCLE #7

TOTAL MISSION TIME = 130.51 MIN
PLA(MAX) = 79.00

PLA/PLA(MAX) SUMMARY

PLA/PLA(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	3.56	30.20	6.58	0.79	36.15	3.60	42.73	6.89

PLA/PLA(MAX) INITIAL POSITION	PLA/PLA(MAX) FINAL POSITION											R/B
	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100		
0<10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10<20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20<30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30<40	0.	0.	0.	0.	3.	0.	0.	0.	2.	0.	0.	0.
40<50	0.	0.	0.	0.	1.	1.	1.	7.	9.	1.	1.	0.
50<60	0.	0.	0.	0.	5.	3.	1.	7.	4.	0.	0.	0.
60<70	0.	0.	0.	0.	2.	2.	0.	5.	2.	0.	0.	0.
70<80	0.	0.	0.	3.	6.	12.	3.	23.	11.	1.	0.	0.
80<90	0.	0.	0.	0.	3.	2.	4.	13.	13.	7.	0.	0.
90-100	0.	0.	0.	2.	1.	0.	2.	4.	1.	67.	2.	0.
R/B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.

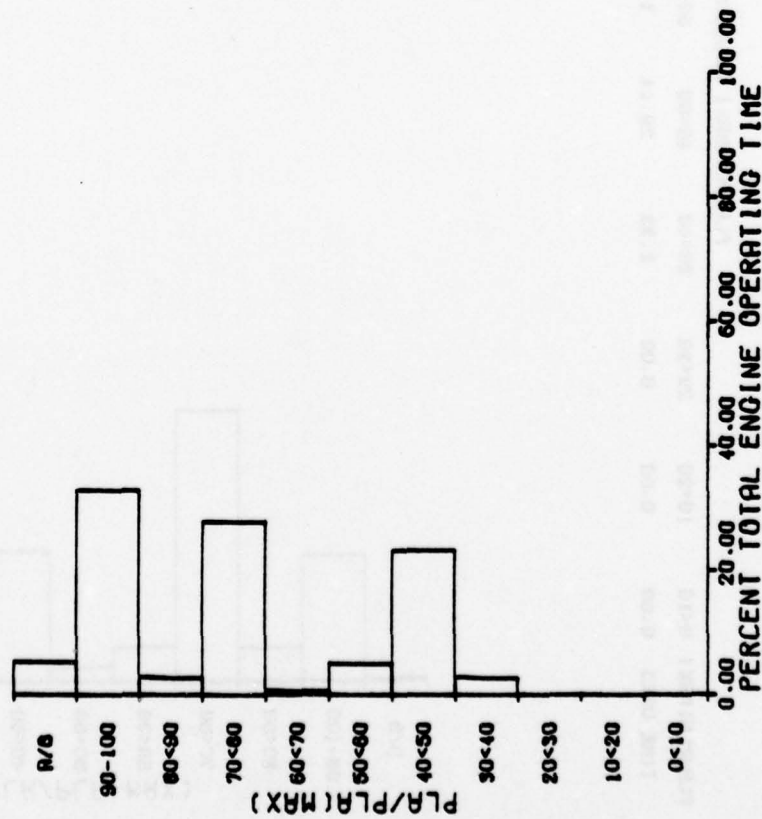


FIGURE 30. F404 TEST CYCLE 7 THROTTLE POSITION SUMMARY

F404-GE-400 DUTY TEST CYCLE #8

TOTAL MISSION TIME = 139.76 MIN
PLA(MAX) = 79.00

PLA/PLA(MAX) SUMMARY

PLA/PLA(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	2.33	29.14	3.19	7.86	60.68	7.78	28.16	0.61

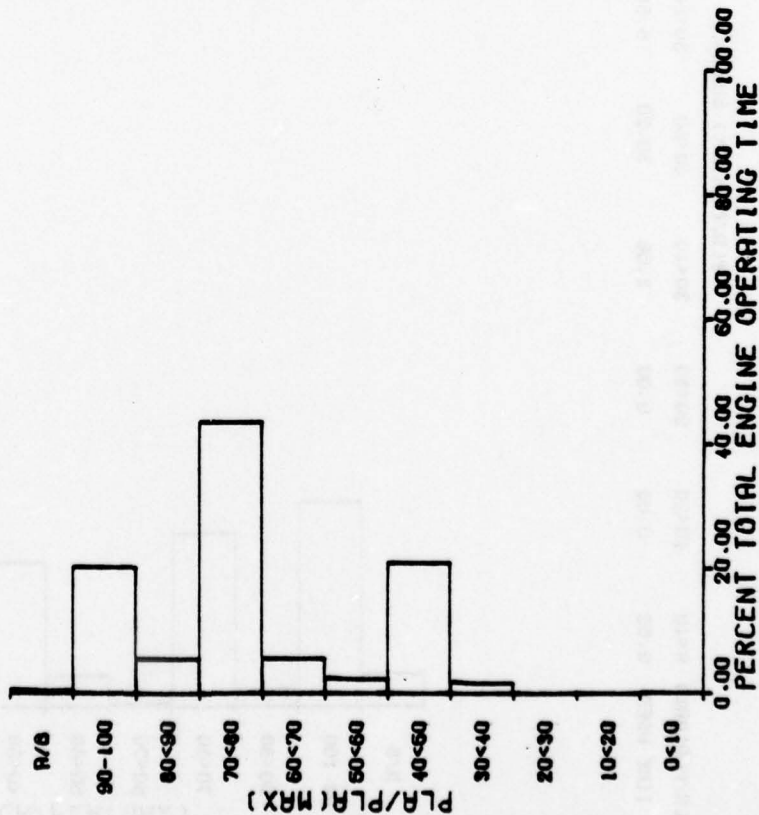


FIGURE 31. F404 TEST CYCLE 8 THROTTLE POSITION SUMMARY

PLA/PLA(MAX) INITIAL POSITION		PLA/PLA(MAX) FINAL POSITION												R/B	
		0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100				
0<10		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
10<20		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
20<30		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
30<40		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
40<50		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
50<60		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
60<70		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
70<80		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
80<90		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
90-100		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
R/B		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				

F404-GE-400 DUTY TEST CYCLE #9

TOTAL MISSION TIME = 122.47 MIN
PLA(MAX) = 79.00

PLA/PLA(MAX) SUMMARY

PLA/PLA(MAX)	0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B
TIME USED	0.00	0.00	0.00	5.22	29.69	13.81	0.59	36.07	7.87	28.15	3.08

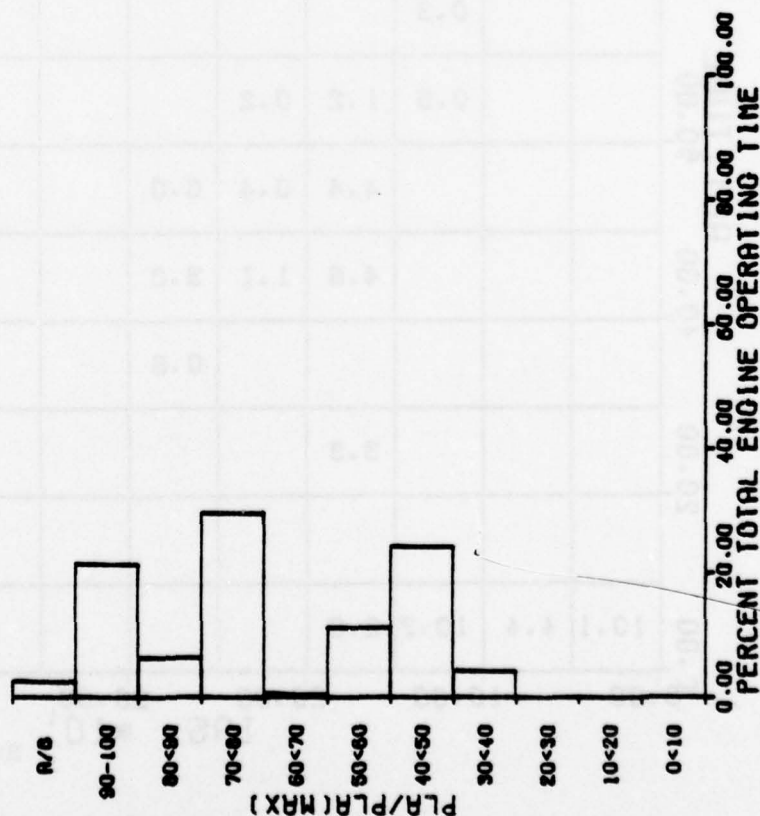


FIGURE 12. F404 TEST CYCLE 9 THROTTLE POSITION SUMMARY

PLA/PLA(MAX) INITIAL POSITION		PLA/PLA(MAX) FINAL POSITION											
		0<10	10<20	20<30	30<40	40<50	50<60	60<70	70<80	80<90	90-100	R/B	
0<10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10<20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20<30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30<40	0.	0.	0.	0.	3.	0.	0.	0.	0.	2.	0.	0.	0.
40<50	0.	0.	0.	0.	1.	2.	0.	6.	8.	2.	0.	0.	0.
50<60	0.	0.	0.	0.	3.	1.	0.	11.	4.	0.	0.	0.	0.
60<70	0.	0.	0.	0.	2.	1.	0.	4.	3.	0.	0.	0.	0.
70<80	0.	0.	0.	3.	5.	14.	2.	33.	14.	0.	0.	0.	0.
80<90	0.	0.	0.	0.	4.	1.	5.	12.	11.	11.	0.	0.	0.
90-100	0.	0.	0.	2.	1.	0.	3.	5.	2.	49.	2.	0.	0.
R/B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	0.	0.

F404-GE-400 DUTY TEST CYCLE #1

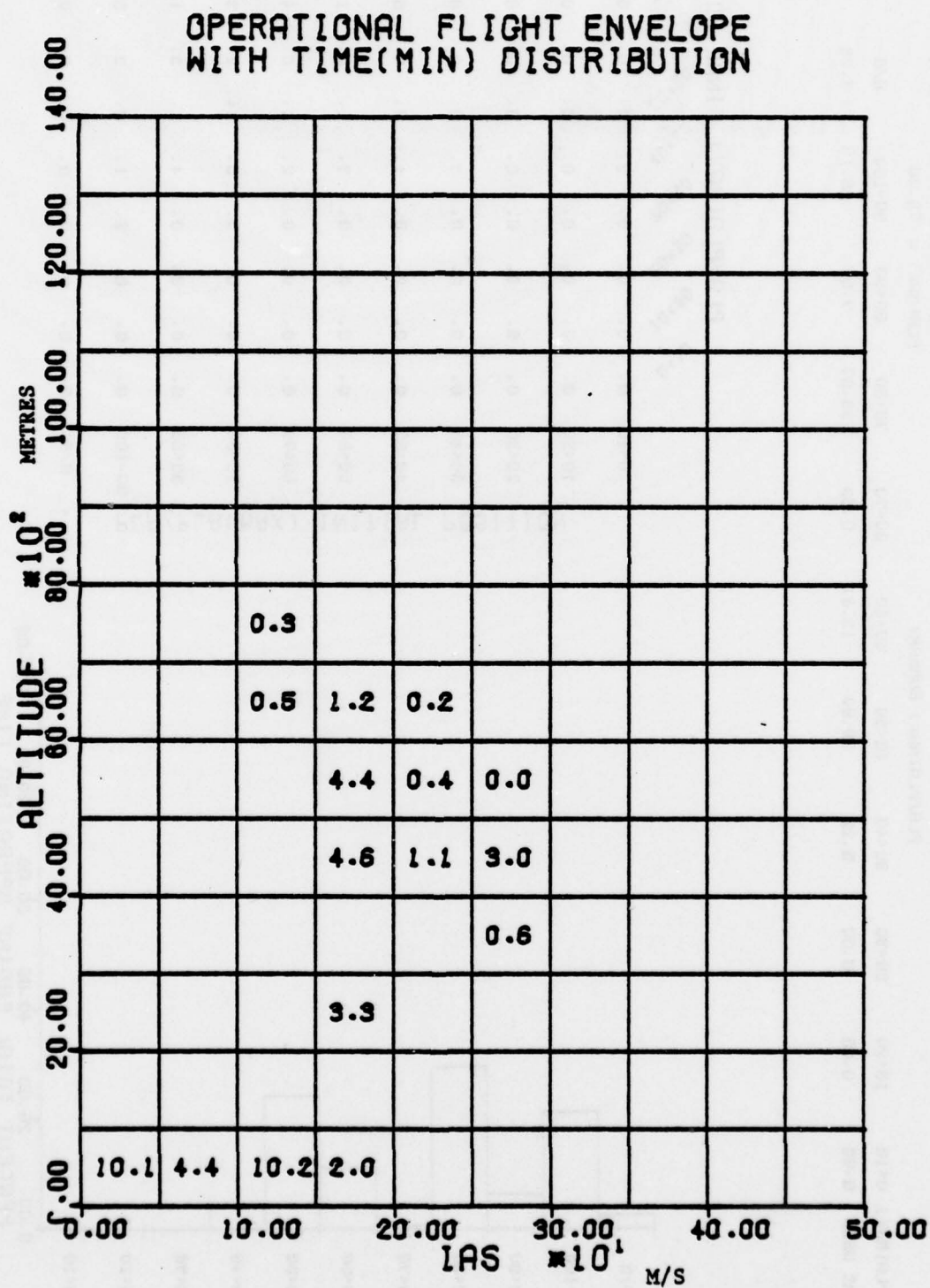


FIGURE 33. F404 TEST CYCLE 1 FLIGHT ENVELOPE

F404-GE-400 DUTY TEST CYCLE #2

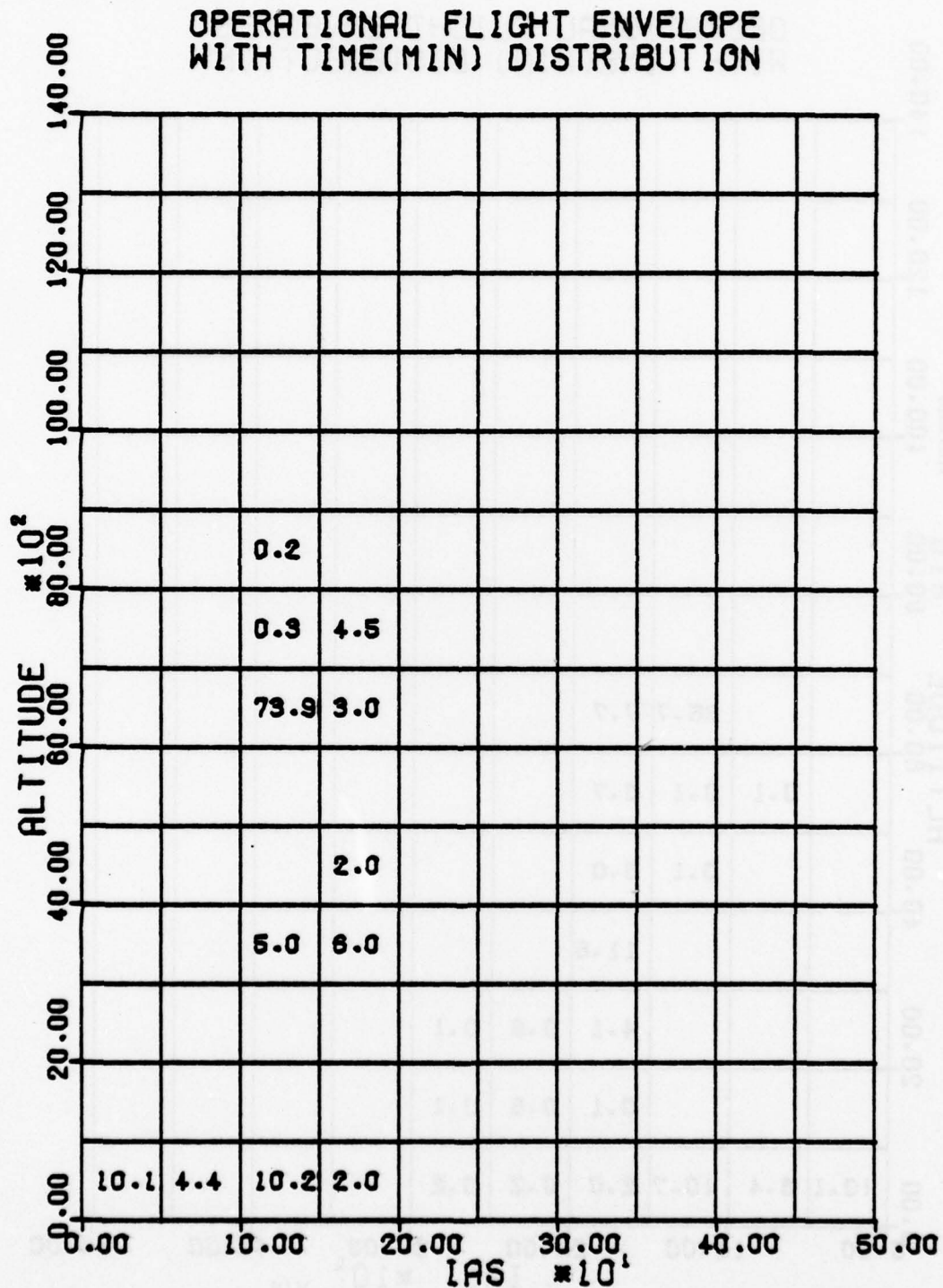


FIGURE 34. F404 TEST CYCLE 2 FLIGHT ENVELOPE

F404-GE-400 DUTY TEST CYCLE #3

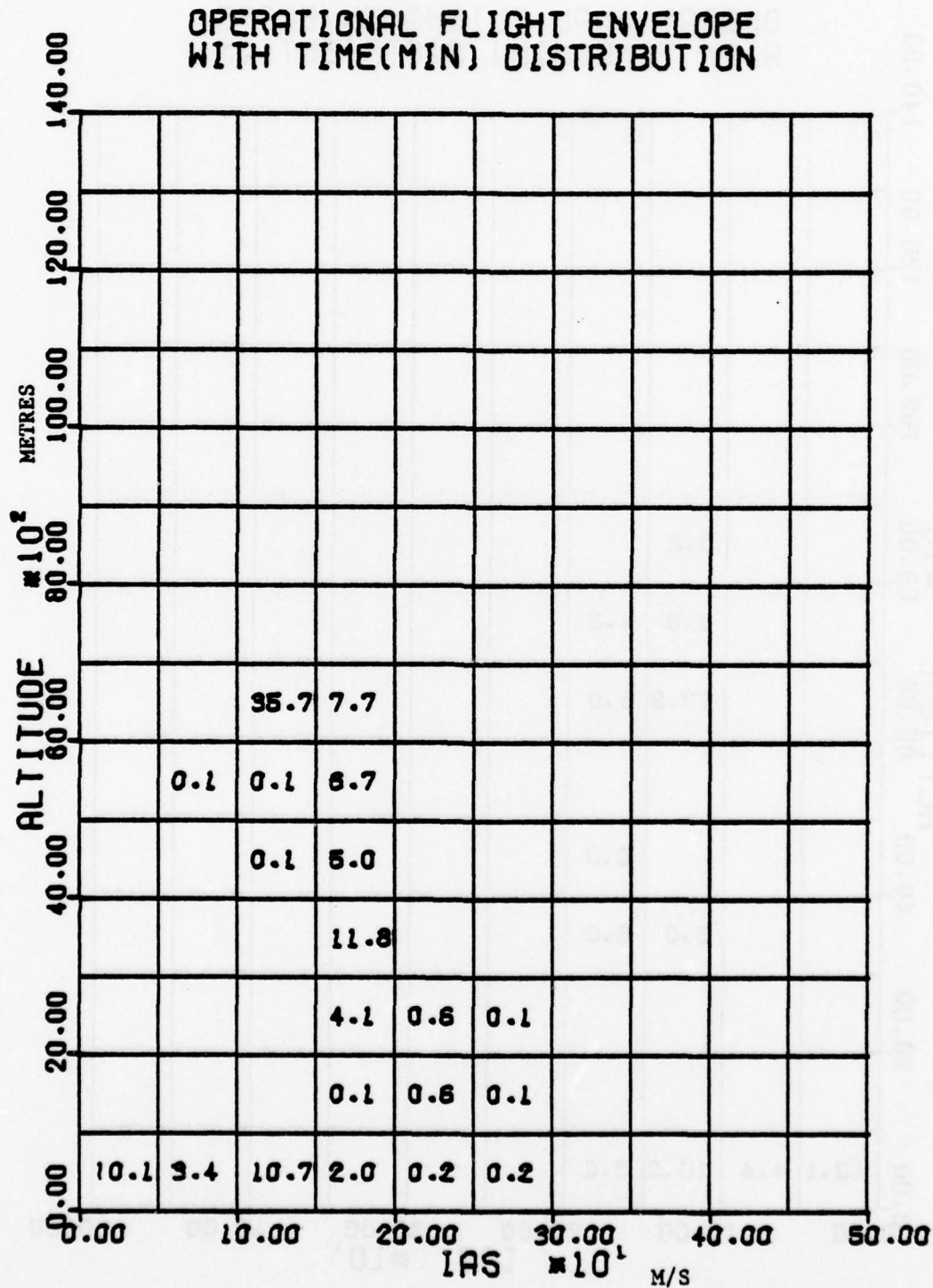


FIGURE 35. F404 TEST CYCLE 3 FLIGHT ENVELOPE

NADC-77051-30
F404-GE-400 DUTY TEST CYCLE #4

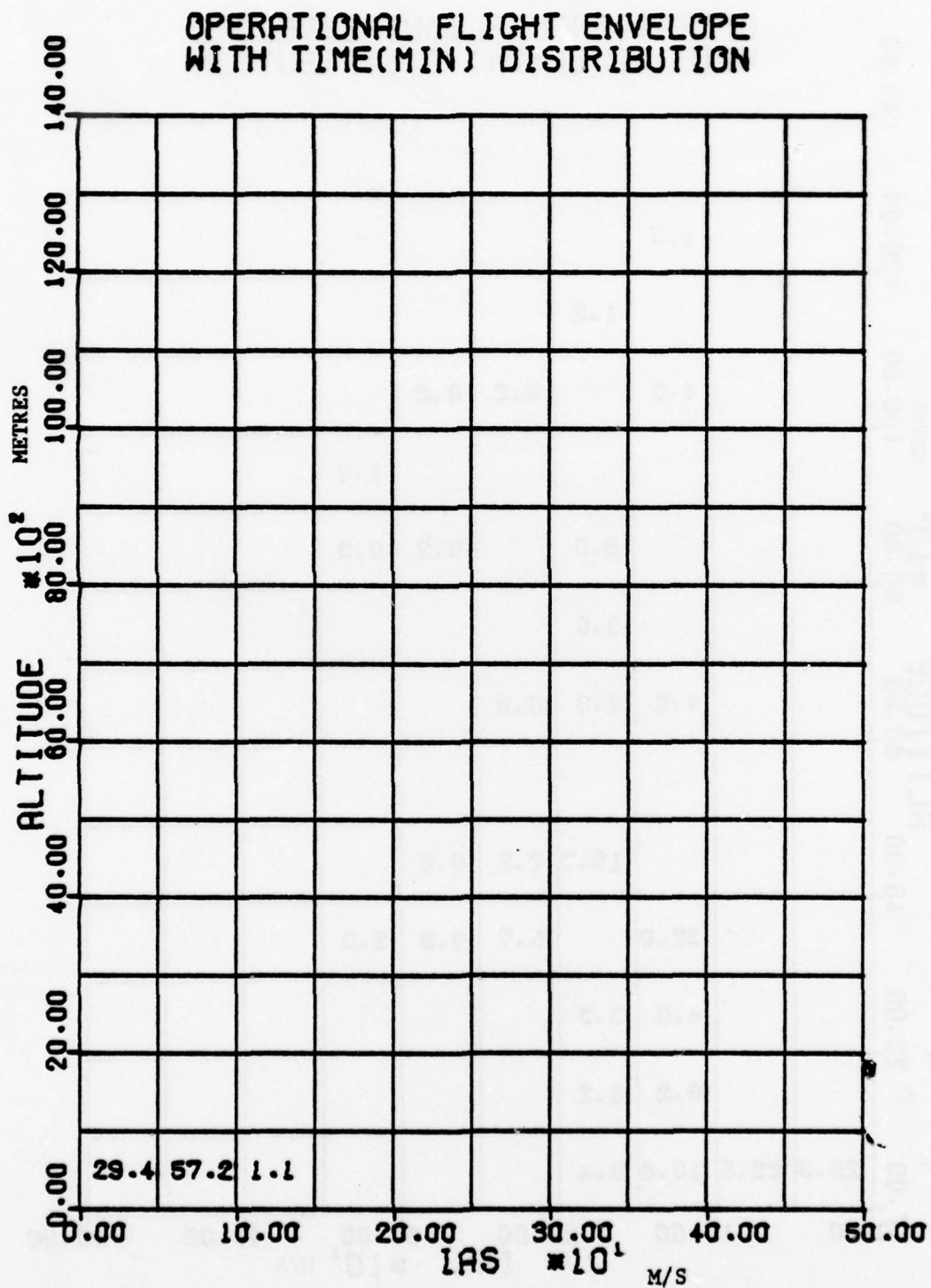


FIGURE 36. F404 TEST CYCLE 4 FLIGHT ENVELOPE

F404-GE-400 DUTY TEST CYCLE #5

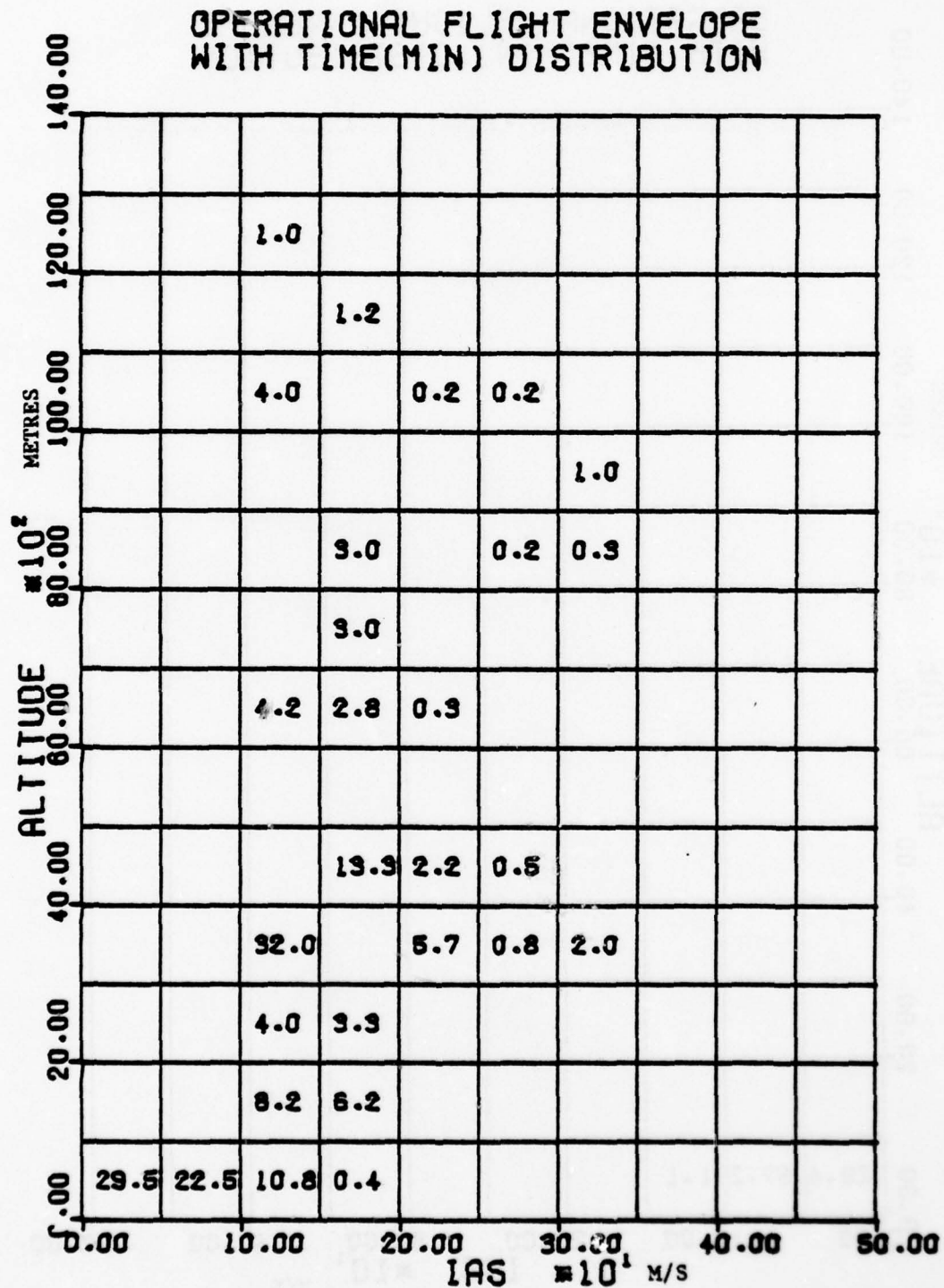


FIGURE 37. F404 TEST CYCLE 5 FLIGHT ENVELOPE

F404-GE-400 DUTY TEST CYCLE #6

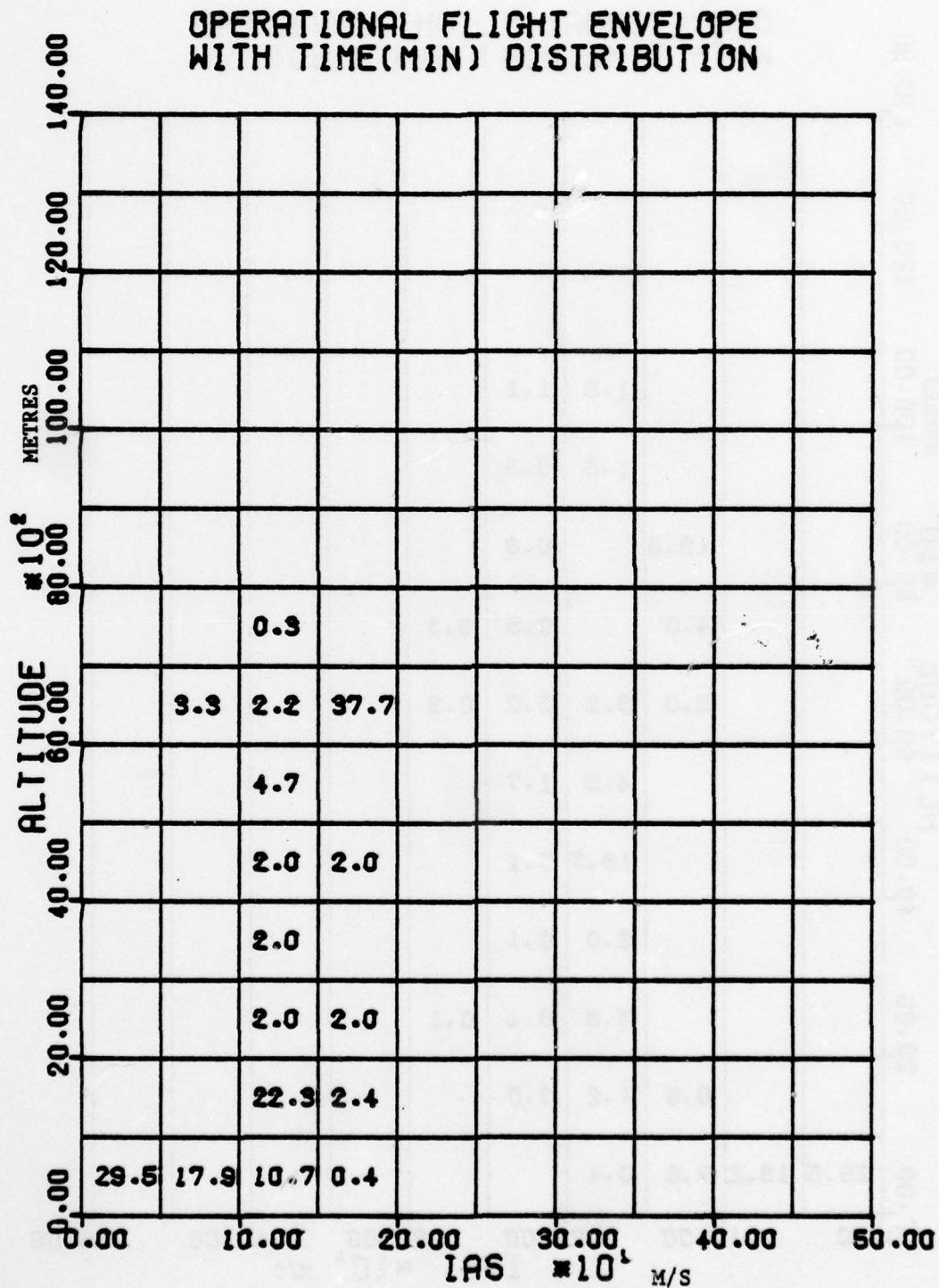


FIGURE 38. F404 TEST CYCLE 6 FLIGHT ENVELOPE

F404-GE-400 DUTY TEST CYCLE #7

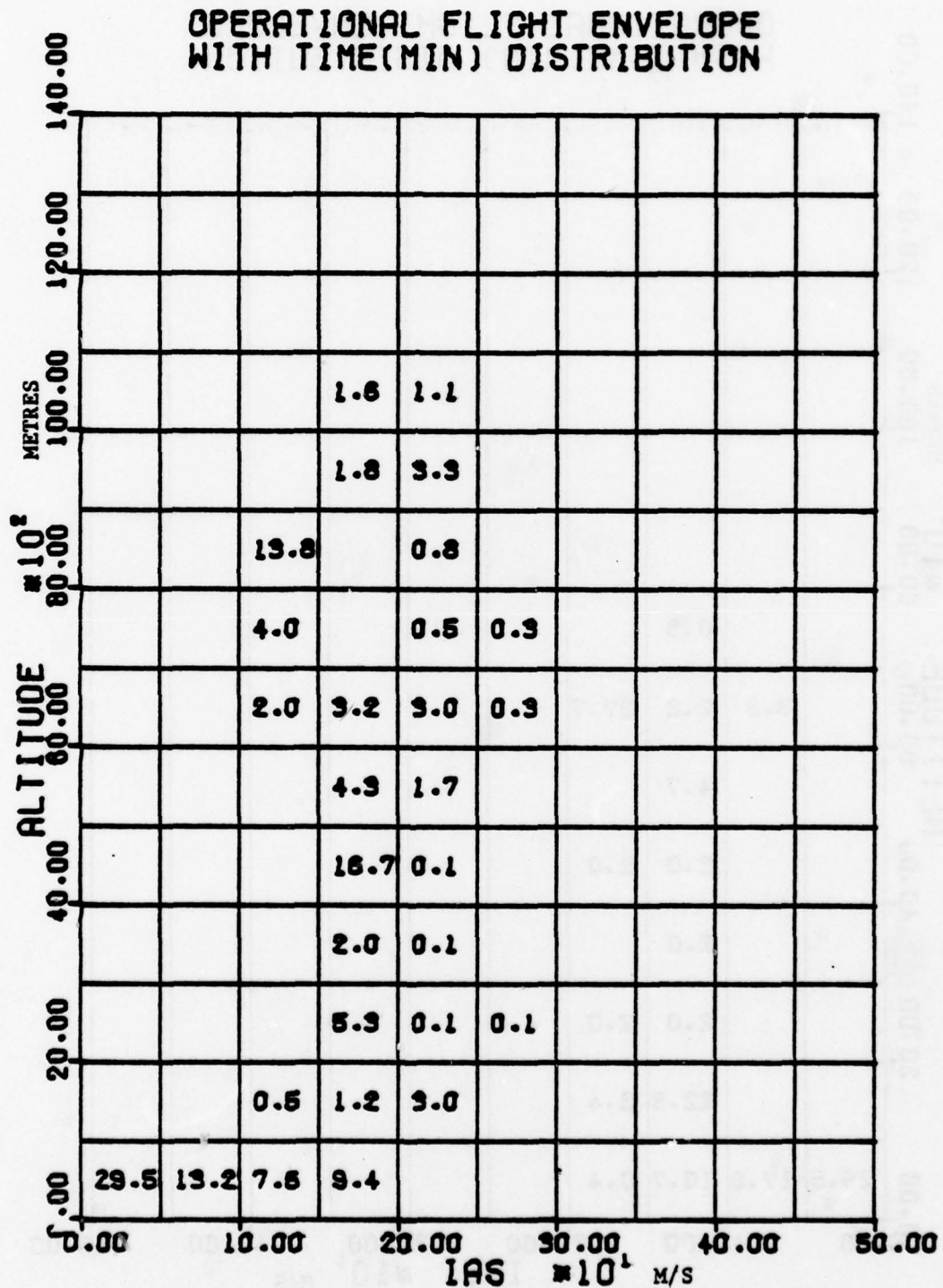


FIGURE 39. F404 TEST CYCLE 7 FLIGHT ENVELOPE

F404-GE-400 DUT / TEST CYCLE #8

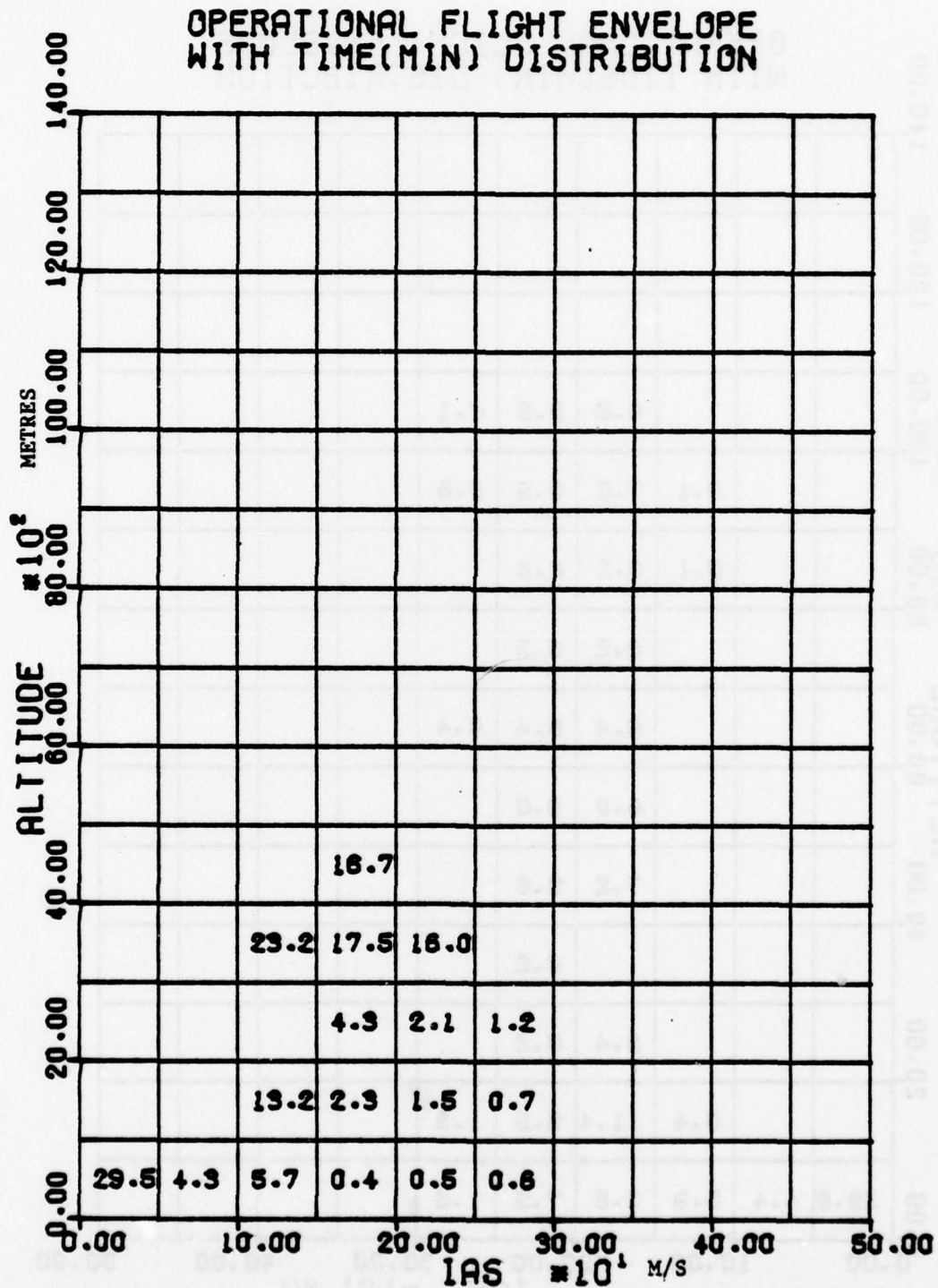


FIGURE 40. F404 TEST CYCLE 8 FLIGHT ENVELOPE

F404-GE-400 DUTY TEST CYCLE #9

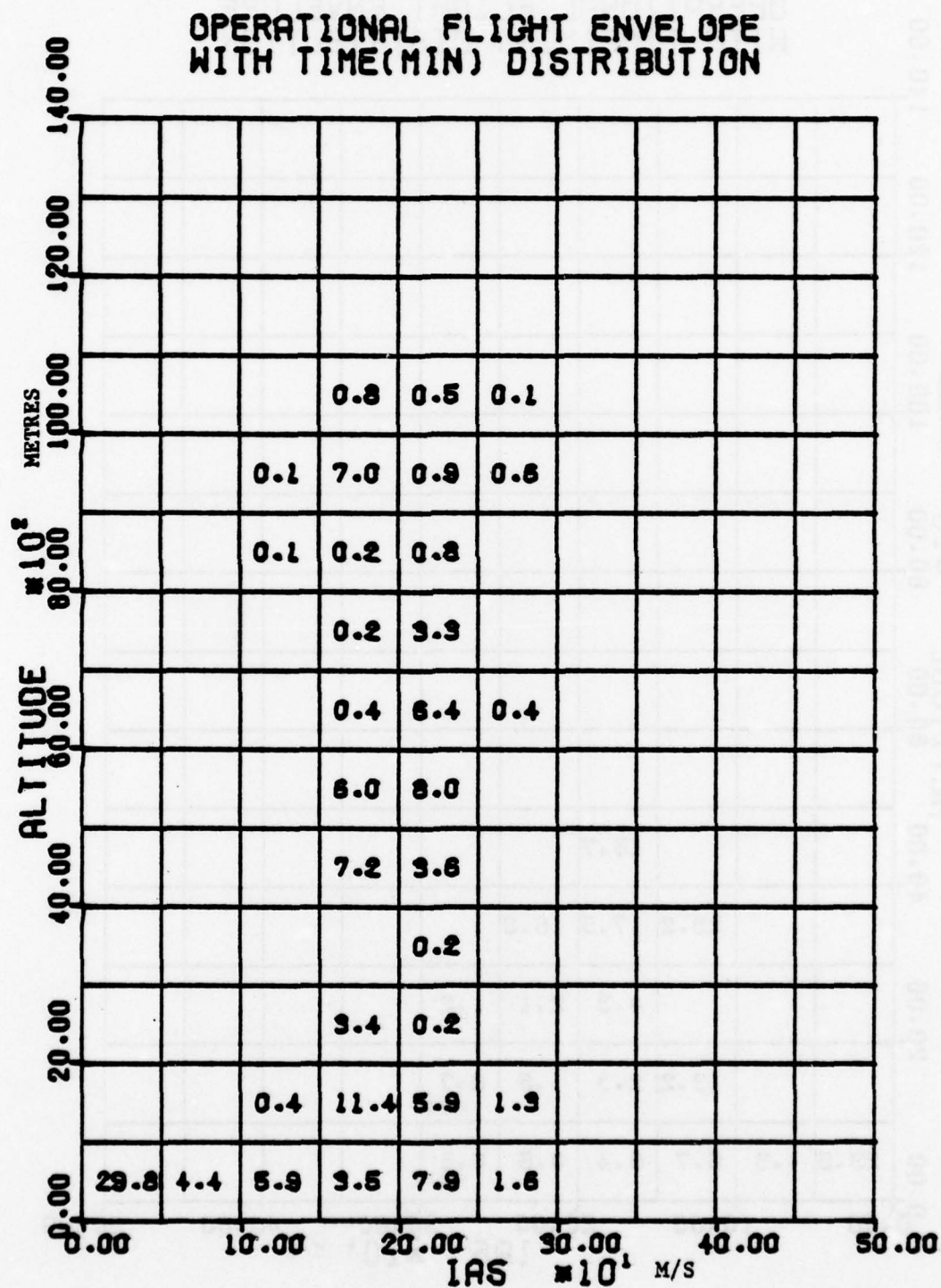


FIGURE 41. F404 TEST CYCLE 9 FLIGHT ENVELOPE

TABLE I
F18 SMET PERCENTAGE MISSION MIX

<u>F4J/F18 Mission</u>	<u>Individual Average Squadron %</u>	<u>Total Adjusted SMET %</u>
SHIP (TACT) Cycle # 1	10.0	2.3
SHIP (INT/CAP) Cycle # 2	80.0	18.4
SHIP (GA) Cycle # 3	<u>10.0</u>	2.3
	100 %	
SHORE (FCLP) Cycle # 4	13.2	10.1
SHORE (FAM) Cycle # 5	13.7	10.4
SHORE (INST) Cycle # 6	8.6	6.6
SHORE (TACT) Cycle # 7	22.5	17.3
SHORE (GA) Cycle # 8	21.8	16.8
SHORE (INT) Cycle # 9	<u>20.2</u>	<u>15.5</u>
	100 %	100 %

TABLE II
THRUST REQUIRED COMPARISON FOR F4J AND F18A AT COMBAT MASS

Altitude m(ft)	Indicated Airspeed m/s(kts)	F4J		F18A	
		%IRT	%A/B	%IRT	%A/B
304.8(1000)	77.2(150)	28.7	-	18.5	-
	128.6(250)	22.8	-	13.9	-
1524(5000)	77.2(150)	36.2	-	20.5	-
	128.6(250)	24.7	-	15.0	-
	180.0(350)	32.4	-	21.4	-
	231.5(450)	39.2	-	33.2	-
3048(10000)	128.6(250)	30.1	-	16.8	-
	180.0(350)	32.6	-	25.7	-
	231.5(450)	45.1	-	33.3	-
4572(15000)	128.6(250)	30.9	-	17.6	-
	180.0(350)	39.2	-	28.3	-
	231.5(450)	54.3	-	41.6	-
	282.9(550)	-	56.7	-	61.4
6096(20000)	128.6(250)	40.7	-	24.8	-
	180.0(350)	43.2	-	31.4	-
	231.5(450)	62.2	-	67.8	-
	282.9(550)	-	58.4	-	59.3
9144(30000)	128.6(250)	56.4	-	33.7	-
	180.0(350)	57.3	-	43.9	-
	231.5(450)	-	57.7	-	57.5
	282.9(550)	-	61.1	-	60.3

TABLE III
TEST CYCLE SEQUENCE AT AMBIENT INLET CONDITIONS

Read Vertically Down and Left to Right

2	9	6	3	2	9	2	5	4	4	5	1	2	4	8	8	7	5
8	2	4	9	8	9	8	2	2	6	2	2	5	2	8	4	8	3
9	1	7	4	8	9	2	9	8	6	8	2	3	9	2	7	4	7
8	2	2	4	4	9	2	9	6	4	9	4	9	4	3	6	2	
4	6	9	4	8	8	9	3	5	8	3	1	2	7	9	4	2	
3	2	1	2	4	2	3	2	3	4	4	1	8	4	4	8	7	
1	2	8	6	2	8	4	7	8	2	5	2	7	8	9	9	2	
1	5	3	2	2	8	1	9	9	2	8	5	4	6	8	2	2	
2	2	8	9	8	8	8	8	6	6	6	2	8	7	2	9	8	
9	8	6	2	9	2	5	8	7	1	5	7	9	9	9	2	7	
4	2	2	1	4	5	5	1	7	7	5	5	4	4	9	7	2	
2	8	5	4	6	8	4	4	8	2	4	9	5	9	8	8	7	
2	1	4	2	9	8	5	6	5	4	4	2	4	7	4	2	2	
7	1	9	2	9	8	4	4	1	8	2	8	9	2	9	2	2	
4	4	8	4	1	1	9	7	2	7	7	9	5	4	8	6	8	
4	4	7	8	8	3	4	4	9	7	4	2	2	8	8	2	8	
9	4	5	9	2	7	6	7	9	1	4	4	6	5	7	7	8	
9	2	4	9	2	5	8	6	9	4	6	6	5	9	7	8	8	
4	7	2	5	5	7	1	9	9	4	1	4	5	4	9	7	2	
9	2	1	4	2	7	8	2	8	1	6	8	4	4	8	4	5	

Numbers represent mission types as defined in Table I, page 54.

TABLE IV
TEST CYCLE SEQUENCE AT ELEVATED INLET CONDITIONS

7	9	7	5	9	7	9	9	1
7	1	5	7	7	7	7	7	7
1	7	7	7	9	7	1	7	7
9	7	9	7	7	5	9	7	7
7	7	7	9	7	1	7	7	
9	9	9	7	7	9	7	5	

Numbers represent mission types as defined in Table I, page 54.

TABLE V

PROPOSED AND DEVELOPED SNET COMPARISON

	PROPOSED	ESCORT	INT - CAS	MTC - CAP	MAR - CAP	CO	FCFP	ACM	AIR	PERRY	SNET DUTY CYCLE									
											#1	#2	#3	#4	#5	#6	#7	#8	#9	
MISSION LENGTH (MIN)	120	90	59	204	224	74	104	108	89		43	118	96	80	163	141	123	132	115	
MISSION MIX (%)	7.5	11.7	7.5	10.8	2.0	10.3	20.8	20.0	9.3		2.3	18.4	2.3	10.1	10.4	6.6	17.3	16.8	15.6	
MIX HOURS	56	87	56	81	15	77	156	150	70		17	138	17	75	78	49	130	126	116	
MISSIONS IN 750 HR TEST	28	59	57	24	4	63	90	83	47		25	70	11	57	29	21	64	57	61	
STARTS AND SHUTDOWNS (#)	56	118	114	48	8	126	180	166	94		50	140	27	114	58	42	128	114	122	
TEST TIME AT IDLE (HR)	11	23	9	9	10	20	35	31	15		2	7	1	20	14	10	24	22	25	
TEST TIME AT PART POWER (HR)	30	38	33	63	4	51	82	73	45		11	126	15	53	52	33	85	86	66	
TEST TIME AT INTERMEDIATE (HR)	14	26	12	8	.6	6	26	19	10		3	3	1	3	9	6	14	17	22	
TEST TIME AT A/B (HR)	1	-	2	1	-	-	12	26	-		1	1	.2	-	3	.2	7	.5	3	
TOTAL TEST TIME (HR)					750										750					
EXCURSIONS SMALL & MOD	168	590	114	96	60	1008	540	664	94		1000	3850	649	2255	4785	2289	5248	6555	5368	
EXCURSIONS IDLE TO INT. OR A/B	56	118	114	48	48	63	180	166	47		125	350	121	714	87	63	256	1197	427	
EXCURSIONS A/B TO A/B	224	-	456	112	-	-	1440	1328	-		200	560	66	-	377	42	384	114	244	
TOTAL TEST EXCURSIONS					7734										46,726					

NADC-77051-30

APPENDIX A

F404 SUMMARIES AND TEST CYCLES

APPENDIX A
F404 SUMMARIES AND TEST CYCLES

Data listed for the nine duty cycles based on actual operating VF/VA squadron experience are presented in this appendix. Within each cycle, three parameters are shown with time (seconds) for the entire mission. The three parameters listed are power lever angle, indicated airspeed and altitude. Units for these parameters are degrees, meters/second (knots) and meters (feet), respectively. Cycles 1-3 reflect shipboard operation with the remaining cycles being shore based.

F404-GE-400 DUTY TEST CYCLE #1

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
360.00	34.10	.00 (.00)	.00 (.00)
361.00	60.08	.00 (.00)	.00 (.00)
376.00	60.08	.00 (.00)	.00 (.00)
377.00	34.10	.00 (.00)	.00 (.00)
380.00	34.10	.00 (.00)	.00 (.00)
380.90	79.00	.00 (.00)	.00 (.00)
396.00	79.00	.00 (.00)	.00 (.00)
397.00	34.10	.00 (.00)	.00 (.00)
400.00	130.00	.00 (.00)	.00 (.00)
410.00	130.00	51.44 (100.00)	60.96 (200.00)
440.00	130.00	92.60 (180.00)	121.92 (400.00)
441.00	79.00	113.18 (220.00)	152.40 (500.00)
480.00	79.00	128.61 (250.00)	152.40 (500.00)
600.00	79.00	180.06 (350.00)	152.40 (500.00)
601.00	78.00	180.06 (350.00)	152.40 (500.00)
801.00	77.53	180.06 (350.00)	2743.20 (9000.00)
1051.00	77.00	169.77 (330.00)	4572.00 (15000.00)
1301.00	76.32	159.48 (310.00)	5791.20 (19000.00)
1321.00	61.82	154.33 (300.00)	6096.00 (20000.00)
1322.00	61.82	154.33 (300.00)	6096.00 (20000.00)
1337.00	78.50	164.62 (320.00)	5852.16 (19200.00)
1407.00	78.50	277.80 (540.00)	4175.76 (13700.00)
1408.00	78.00	277.80 (540.00)	4175.76 (13700.00)
1413.00	78.00	257.22 (500.00)	4876.80 (16000.00)
1414.00	78.50	252.08 (490.00)	4876.80 (16000.00)
1418.00	78.50	236.64 (460.00)	4876.80 (16000.00)
1428.00	78.50	164.62 (320.00)	6096.00 (20000.00)
1438.00	78.00	216.07 (420.00)	5486.40 (18000.00)
1445.00	78.50	277.80 (540.00)	4876.80 (16000.00)
1446.00	78.50	277.80 (540.00)	4572.00 (15000.00)
1453.00	130.00	267.51 (520.00)	4267.20 (14000.00)
1454.00	130.00	267.51 (520.00)	4267.20 (14000.00)
1461.00	130.00	257.22 (500.00)	4572.00 (15000.00)
1468.00	130.00	195.49 (380.00)	6096.00 (20000.00)
1478.00	130.00	123.47 (240.00)	7315.20 (24000.00)
1488.00	109.92	164.62 (320.00)	6705.60 (22000.00)
1493.00	130.00	226.36 (440.00)	6096.00 (20000.00)
1494.00	130.00	231.50 (450.00)	6096.00 (20000.00)
1495.00	130.00	246.93 (480.00)	5791.20 (19000.00)
1496.00	130.00	252.08 (490.00)	5486.40 (18000.00)
1500.00	88.84	295.81 (575.00)	4267.20 (14000.00)
1501.00	88.84	295.81 (575.00)	4267.20 (14000.00)
1510.00	78.50	272.66 (530.00)	3048.00 (10000.00)
1511.00	78.00	272.66 (530.00)	3048.00 (10000.00)
1518.00	78.50	282.94 (550.00)	3962.40 (13000.00)
1528.00	78.50	277.80 (540.00)	4267.20 (14000.00)
1536.00	78.00	267.51 (520.00)	4267.20 (14000.00)

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1537.00	78.00	267.51(520.00)	4267.20(14000.00)
1548.00	78.50	180.06(350.00)	4876.80(16000.00)
1549.00	78.50	180.06(350.00)	4876.80(16000.00)
1558.00	78.50	221.21(430.00)	4572.00(15000.00)
1568.00	78.00	205.78(400.00)	4572.00(15000.00)
1578.00	78.50	241.79(470.00)	4267.20(14000.00)
1579.00	78.00	277.80(540.00)	4175.76(13700.00)
1584.00	78.00	257.22(500.00)	4876.80(16000.00)
1585.00	78.50	252.08(490.00)	4876.80(16000.00)
1589.00	78.50	236.64(460.00)	4876.80(16000.00)
1599.00	78.50	164.62(320.00)	6096.00(20000.00)
1609.00	78.00	216.07(420.00)	5486.40(18000.00)
1616.00	78.50	277.80(540.00)	4876.80(16000.00)
1617.00	78.50	277.80(540.00)	4572.00(15000.00)
1624.00	130.00	267.51(520.00)	4267.20(14000.00)
1625.00	130.00	267.51(520.00)	4267.20(14000.00)
1632.00	130.00	257.22(500.00)	4572.00(15000.00)
1639.00	130.00	195.49(380.00)	6096.00(20000.00)
1649.00	130.00	123.47(240.00)	7315.20(24000.00)
1659.00	109.92	164.62(320.00)	6705.60(22000.00)
1664.00	130.00	226.36(440.00)	6096.00(20000.00)
1665.00	130.00	231.50(450.00)	6096.00(20000.00)
1666.00	130.00	246.93(480.00)	5791.20(19000.00)
1667.00	130.00	252.08(490.00)	5486.40(18000.00)
1671.00	88.84	295.81(575.00)	4267.20(14000.00)
1672.00	88.84	295.81(575.00)	4267.20(14000.00)
1681.00	78.50	272.66(530.00)	3048.00(10000.00)
1682.00	78.50	272.66(530.00)	3048.00(10000.00)
1689.00	78.50	282.94(550.00)	3962.40(13000.00)
1699.00	78.50	277.80(540.00)	4267.20(14000.00)
1707.00	78.00	267.51(520.00)	4267.20(14000.00)
1708.00	78.00	267.51(520.00)	4267.20(14000.00)
1719.00	78.50	180.06(350.00)	4876.80(16000.00)
1720.00	78.50	180.06(350.00)	4876.80(16000.00)
1729.00	78.50	221.21(430.00)	4572.00(15000.00)
1739.00	78.00	205.78(400.00)	4572.00(15000.00)
1749.00	78.50	241.79(470.00)	4267.20(14000.00)
1750.00	78.50	241.79(470.00)	4267.20(14000.00)
1780.00	43.10	128.61(250.00)	6248.40(20500.00)
2350.00	43.10	128.61(250.00)	365.76(1200.00)
2410.00	63.29	74.59(145.00)	359.66(1180.00)
2411.00	63.29	74.59(145.00)	359.66(1180.00)
2418.00	64.03	76.14(148.00)	359.66(1180.00)
2423.00	67.09	77.17(150.00)	356.62(1170.00)
2428.00	58.17	75.62(147.00)	359.66(1180.00)
2433.00	77.53	76.14(148.00)	350.52(1150.00)
2438.00	68.22	77.17(150.00)	353.57(1160.00)
2443.00	67.09	78.20(152.00)	365.76(1200.00)
2448.00	67.47	78.20(152.00)	371.86(1220.00)
2453.00	64.03	77.17(150.00)	381.00(1250.00)

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2456.50	53.56	77.17 (150.00)	377.95 (1240.00)
2463.00	65.54	77.17 (150.00)	353.57 (1160.00)
2464.00	70.84	77.17 (150.00)	353.57 (1160.00)
2468.00	62.57	78.71 (153.00)	347.47 (1140.00)
2473.00	65.54	77.17 (150.00)	350.52 (1150.00)
2478.00	61.00	77.17 (150.00)	350.52 (1150.00)
2483.00	67.85	77.17 (150.00)	345.95 (1135.00)
2486.00	63.29	77.17 (150.00)	347.47 (1140.00)
2488.00	71.67	77.17 (150.00)	353.57 (1160.00)
2492.00	52.07	77.17 (150.00)	362.71 (1190.00)
2498.00	67.85	76.14 (148.00)	359.66 (1180.00)
2502.00	57.71	77.17 (150.00)	347.47 (1140.00)
2508.00	67.09	77.17 (150.00)	316.99 (1040.00)
2513.00	57.71	79.74 (155.00)	304.80 (1000.00)
2518.00	62.20	77.17 (150.00)	292.61 (950.00)
2523.00	57.90	77.17 (150.00)	262.13 (860.00)
2528.00	46.10	77.17 (150.00)	237.74 (780.00)
2533.00	58.44	76.14 (148.00)	204.22 (670.00)
2536.00	76.32	77.17 (150.00)	188.98 (620.00)
2539.00	60.08	81.80 (159.00)	173.74 (570.00)
2540.00	57.71	81.28 (158.00)	167.64 (550.00)
2543.00	46.10	79.74 (155.00)	161.54 (530.00)
2548.00	61.82	77.17 (150.00)	134.11 (440.00)
2551.50	56.92	77.17 (150.00)	106.68 (350.00)
2553.00	63.29	77.17 (150.00)	85.34 (280.00)
2559.00	70.06	79.74 (155.00)	60.96 (200.00)
2561.50	55.00	82.31 (160.00)	51.82 (170.00)
2563.00	37.10	82.31 (160.00)	45.72 (150.00)
2568.00	61.42	77.17 (150.00)	24.38 (80.00)
2569.50	52.07	77.17 (150.00)	21.34 (70.00)
2573.00	58.00	77.17 (150.00)	12.19 (40.00)
2574.00	68.59	77.17 (150.00)	6.10 (20.00)
2575.00	75.52	79.74 (155.00)	.00 (.00)
2579.00	78.50	.00 (.00)	.00 (.00)
2583.00	66.31	.00 (.00)	.00 (.00)
2781.00	34.10	.00 (.00)	.00 (.00)

F404-GE-400 DUTY TEST CYCLE #2

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
360.00	34.10	.00 (.00)	.00 (.00)
361.00	60.08	.00 (.00)	.00 (.00)
376.00	60.08	.00 (.00)	.00 (.00)
377.00	34.10	.00 (.00)	.00 (.00)
380.00	34.10	.00 (.00)	.00 (.00)
380.90	79.00	.00 (.00)	.00 (.00)
396.00	79.00	.00 (.00)	.00 (.00)
397.00	34.10	.00 (.00)	.00 (.00)
400.00	130.00	.00 (.00)	.00 (.00)
410.00	130.00	51.44 (100.00)	60.96 (200.00)
440.00	130.00	92.60 (180.00)	121.92 (400.00)
441.00	79.00	113.18 (220.00)	152.40 (500.00)
480.00	79.00	128.61 (250.00)	152.40 (500.00)
600.00	79.00	180.06 (350.00)	152.40 (500.00)
601.00	83.82	180.06 (350.00)	152.40 (500.00)
901.00	64.03	154.33 (300.00)	3048.00 (10000.00)
902.00	64.03	154.33 (300.00)	3048.00 (10000.00)
962.00	61.00	128.61 (250.00)	3048.00 (10000.00)
1022.00	61.00	128.61 (250.00)	3048.00 (10000.00)
1023.00	62.57	133.76 (260.00)	3048.00 (10000.00)
1083.00	62.57	133.76 (260.00)	3048.00 (10000.00)
1084.00	61.00	128.61 (250.00)	3048.00 (10000.00)
1142.00	61.00	128.61 (250.00)	3048.00 (10000.00)
1147.00	62.57	133.76 (260.00)	3048.00 (10000.00)
1152.00	61.00	128.61 (250.00)	3048.00 (10000.00)
1157.00	61.82	131.18 (255.00)	3048.00 (10000.00)
1162.00	61.00	128.61 (250.00)	3048.00 (10000.00)
1202.00	61.00	128.61 (250.00)	3048.00 (10000.00)
1262.00	64.03	154.33 (300.00)	3048.00 (10000.00)
1263.00	77.00	180.06 (350.00)	3048.00 (10000.00)
1383.00	76.32	180.06 (350.00)	4876.80 (16000.00)
1563.00	65.54	164.62 (320.00)	6400.80 (21000.00)
1763.00	58.44	128.61 (250.00)	6705.60 (22000.00)
1764.00	56.92	174.91 (340.00)	7620.00 (25000.00)
1774.00	56.92	154.33 (300.00)	7924.80 (26000.00)
1784.00	56.92	138.90 (270.00)	8229.60 (27000.00)
1794.00	56.92	149.19 (290.00)	7924.80 (26000.00)
1804.00	56.92	159.48 (310.00)	7620.00 (25000.00)
1817.00	56.92	164.62 (320.00)	7315.20 (24000.00)
1819.00	66.31	164.62 (320.00)	7315.20 (24000.00)
1824.00	67.85	164.62 (320.00)	7010.40 (23000.00)
1834.00	69.68	164.62 (320.00)	7010.40 (23000.00)
1844.00	69.68	159.48 (310.00)	7315.20 (24000.00)
1854.00	69.68	154.33 (300.00)	7620.00 (25000.00)
1864.00	69.68	149.19 (290.00)	7772.40 (25500.00)
1874.00	69.68	149.19 (290.00)	7772.40 (25500.00)
1884.00	66.31	154.33 (300.00)	7620.00 (25000.00)

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2064.00	66.31	154.33 (300.00)	7467.60 (24500.00)
2065.00	58.44	128.61 (250.00)	6705.60 (22000.00)
2665.00	57.90	123.47 (240.00)	6705.60 (22000.00)
3265.00	58.44	131.18 (255.00)	6096.00 (20000.00)
3865.00	58.00	128.61 (250.00)	6400.80 (21000.00)
3866.00	52.07	138.90 (270.00)	6096.00 (20000.00)
3986.00	56.92	128.61 (250.00)	6096.00 (20000.00)
4016.00	56.92	128.61 (250.00)	6096.00 (20000.00)
4156.00	52.07	128.61 (250.00)	6096.00 (20000.00)
4166.00	43.10	128.61 (250.00)	6096.00 (20000.00)
4176.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4466.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4467.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4587.00	56.92	128.61 (250.00)	6096.00 (20000.00)
4617.00	56.92	128.61 (250.00)	6096.00 (20000.00)
4757.00	52.07	128.61 (250.00)	6096.00 (20000.00)
4767.00	43.10	128.61 (250.00)	6096.00 (20000.00)
4777.00	52.07	138.90 (270.00)	6096.00 (20000.00)
5067.00	52.07	138.90 (270.00)	6096.00 (20000.00)
5068.00	52.07	138.90 (270.00)	6096.00 (20000.00)
5188.00	56.92	128.61 (250.00)	6096.00 (20000.00)
5218.00	56.92	128.61 (250.00)	6096.00 (20000.00)
5358.00	52.07	128.61 (250.00)	6096.00 (20000.00)
5368.00	43.10	128.61 (250.00)	6096.00 (20000.00)
5378.00	52.07	138.90 (270.00)	6096.00 (20000.00)
5668.00	52.07	138.90 (270.00)	6096.00 (20000.00)
5669.00	52.07	138.90 (270.00)	6096.00 (20000.00)
5789.00	56.92	128.61 (250.00)	6096.00 (20000.00)
5819.00	56.92	128.61 (250.00)	6096.00 (20000.00)
5959.00	52.07	128.61 (250.00)	6096.00 (20000.00)
5969.00	43.10	128.61 (250.00)	6096.00 (20000.00)
5979.00	52.07	138.90 (270.00)	6096.00 (20000.00)
6269.00	52.07	138.90 (270.00)	6096.00 (20000.00)
6270.00	52.07	138.90 (270.00)	6096.00 (20000.00)
6300.00	43.10	128.61 (250.00)	6248.40 (20500.00)
6870.00	43.10	128.61 (250.00)	365.76 (1200.00)
6930.00	63.29	74.59 (145.00)	359.66 (1180.00)
6931.00	63.29	74.59 (145.00)	359.66 (1180.00)
6938.00	64.03	76.14 (148.00)	359.66 (1180.00)
6943.00	67.09	77.17 (150.00)	356.62 (1170.00)
6948.00	58.17	75.62 (147.00)	359.66 (1180.00)
6953.00	77.53	76.14 (148.00)	350.52 (1150.00)
6958.00	68.22	77.17 (150.00)	353.57 (1160.00)
6963.00	67.09	78.20 (152.00)	365.76 (1200.00)
6968.00	67.47	78.20 (152.00)	371.86 (1220.00)
6973.00	64.03	77.17 (150.00)	381.00 (1250.00)
6976.50	53.56	77.17 (150.00)	377.95 (1240.00)
6983.00	65.54	77.17 (150.00)	353.57 (1160.00)
6984.00	70.84	77.17 (150.00)	353.57 (1160.00)
6988.00	62.57	78.71 (153.00)	347.47 (1140.00)

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6993.00	65.54	77.17 (150.00)	350.52 (1150.00)
6998.00	61.00	77.17 (150.00)	350.52 (1150.00)
7003.00	67.85	77.17 (150.00)	345.95 (1135.00)
7006.00	63.29	77.17 (150.00)	347.47 (1140.00)
7008.00	71.67	77.17 (150.00)	353.57 (1160.00)
7012.00	52.07	77.17 (150.00)	362.71 (1190.00)
7018.00	67.85	76.14 (148.00)	359.66 (1180.00)
7022.00	57.71	77.17 (150.00)	347.47 (1140.00)
7026.00	67.09	77.17 (150.00)	316.99 (1040.00)
7033.00	57.71	79.74 (155.00)	304.80 (1000.00)
7038.00	62.20	77.17 (150.00)	292.61 (960.00)
7043.00	57.90	77.17 (150.00)	262.13 (860.00)
7048.00	46.10	77.17 (150.00)	237.74 (780.00)
7053.00	58.44	76.14 (148.00)	204.22 (670.00)
7056.00	76.32	77.17 (150.00)	188.98 (620.00)
7059.00	60.08	81.80 (159.00)	173.74 (570.00)
7060.00	57.71	81.28 (158.00)	167.64 (550.00)
7063.00	46.10	79.74 (155.00)	161.54 (530.00)
7068.00	61.82	77.17 (150.00)	134.11 (440.00)
7071.50	56.92	77.17 (150.00)	106.68 (350.00)
7073.00	63.29	77.17 (150.00)	85.34 (280.00)
7079.00	70.06	79.74 (155.00)	60.96 (200.00)
7081.50	55.00	82.31 (160.00)	51.82 (170.00)
7083.00	37.10	82.31 (160.00)	45.72 (150.00)
7088.00	61.42	77.17 (150.00)	24.38 (80.00)
7089.50	52.07	77.17 (150.00)	21.34 (70.00)
7093.00	58.00	77.17 (150.00)	12.19 (40.00)
7094.00	68.59	77.17 (150.00)	6.10 (20.00)
7095.00	75.52	79.74 (155.00)	.00 (.00)
7099.00	78.50	.00 (.00)	.00 (.00)
7103.00	66.31	.00 (.00)	.00 (.00)
7301.00	34.10	.00 (.00)	.00 (.00)

F404-GE-400 DUTY TEST CYCLE #3

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
360.00	34.10	.00 (.00)	.00 (.00)
365.00	60.08	.00 (.00)	.00 (.00)
371.00	60.08	.00 (.00)	.00 (.00)
377.00	34.10	.00 (.00)	.00 (.00)
380.00	34.10	.00 (.00)	.00 (.00)
381.00	79.00	.00 (.00)	.00 (.00)
396.00	79.00	.00 (.00)	.00 (.00)
397.00	34.10	.00 (.00)	.00 (.00)
400.00	130.00	.00 (.00)	.00 (.00)
410.00	130.00	51.44 (100.00)	60.96 (200.00)
440.00	130.00	92.60 (180.00)	121.92 (400.00)
441.00	79.00	113.18 (220.00)	152.40 (500.00)
480.00	79.00	128.61 (250.00)	152.40 (500.00)
600.00	79.00	180.06 (350.00)	152.40 (500.00)
601.00	78.00	180.06 (350.00)	1341.12 (4400.00)
801.00	77.53	180.06 (350.00)	2743.20 (9000.00)
1101.00	77.00	180.06 (350.00)	4572.00 (15000.00)
1501.00	76.32	164.62 (320.00)	5791.20 (19000.00)
1601.00	61.82	154.33 (300.00)	6096.00 (20000.00)
1602.00	61.82	154.33 (300.00)	6096.00 (20000.00)
1662.00	58.44	128.61 (250.00)	6096.00 (20000.00)
1722.00	58.44	128.61 (250.00)	6096.00 (20000.00)
1723.00	60.08	133.76 (260.00)	6096.00 (20000.00)
1783.00	60.08	133.76 (260.00)	6096.00 (20000.00)
1784.00	58.44	128.61 (250.00)	6096.00 (20000.00)
1842.00	58.44	128.61 (250.00)	6096.00 (20000.00)
1847.00	60.08	133.76 (260.00)	6096.00 (20000.00)
1852.00	58.44	128.61 (250.00)	6096.00 (20000.00)
1857.00	59.18	131.18 (255.00)	6096.00 (20000.00)
1862.00	58.44	128.61 (250.00)	6096.00 (20000.00)
1902.00	58.44	128.61 (250.00)	6096.00 (20000.00)
1962.00	61.82	154.33 (300.00)	6096.00 (20000.00)
1963.00	61.82	154.33 (300.00)	6096.00 (20000.00)
2263.00	61.00	154.33 (300.00)	6248.40 (20500.00)
2563.00	43.10	174.91 (340.00)	3505.20 (11500.00)
2683.00	69.32	180.06 (350.00)	3441.19 (11290.00)
2684.00	69.68	180.06 (350.00)	3633.22 (11920.00)
2691.00	78.00	187.77 (365.00)	3663.70 (12020.00)
2696.00	57.90	192.92 (375.00)	3645.41 (11960.00)
2701.00	52.07	174.91 (340.00)	3648.46 (11970.00)
2706.00	63.29	174.91 (340.00)	3627.12 (11900.00)
2711.00	61.00	174.91 (340.00)	3608.83 (11840.00)
2716.00	61.00	174.91 (340.00)	3633.22 (11920.00)
2720.00	67.85	174.91 (340.00)	3678.94 (12070.00)
2726.00	78.00	187.77 (365.00)	3837.43 (12590.00)
2731.00	78.00	187.77 (365.00)	3639.31 (11940.00)
2736.00	59.18	190.34 (370.00)	3166.87 (10390.00)

2739.00	31.10	205.78(400.00)	2737.10(8980.00)
2744.50	31.10	231.50(450.00)	2124.46(6970.00)
2746.00	31.10	252.08(490.00)	1478.28(4850.00)
2751.00	31.10	257.22(500.00)	853.44(2800.00)
2754.00	68.59	252.08(490.00)	762.00(2500.00)
2757.00	78.00	241.79(470.00)	835.15(2740.00)
2761.00	78.00	231.50(450.00)	1149.10(3770.00)
2766.00	78.00	200.63(390.00)	1792.22(5880.00)
2771.00	77.53	185.20(360.00)	2292.10(7520.00)
2776.00	78.00	174.91(340.00)	2785.87(9140.00)
2781.00	78.00	164.62(320.00)	3118.10(10230.00)
2786.00	78.00	154.33(300.00)	3316.22(10880.00)
2790.00	78.00	159.48(310.00)	3331.46(10930.00)
2796.00	78.00	154.33(300.00)	3243.07(10640.00)
2801.00	78.00	154.33(300.00)	3191.26(10470.00)
2805.00	78.00	154.33(300.00)	3169.92(10400.00)
2811.00	78.00	159.48(310.00)	3243.07(10640.00)
2816.00	78.00	164.62(320.00)	3343.66(10970.00)
2821.00	78.00	164.62(320.00)	3429.00(11250.00)
2826.00	78.00	169.77(330.00)	3520.44(11550.00)
2831.00	63.29	169.77(330.00)	3587.50(11770.00)
2836.00	61.00	169.77(330.00)	3621.02(11880.00)
2841.00	61.00	169.77(330.00)	3627.12(11900.00)
2844.00	67.85	164.62(320.00)	3645.41(11960.00)
2845.00	69.32	164.62(320.00)	3657.60(12000.00)
2851.00	68.59	164.62(320.00)	3718.56(12200.00)
2856.00	67.09	169.77(330.00)	3727.70(12230.00)
2861.00	66.31	169.77(330.00)	3688.08(12100.00)
2866.00	71.67	164.62(320.00)	3675.89(12060.00)
2871.00	64.03	164.62(320.00)	3678.94(12070.00)
2876.00	61.00	169.77(330.00)	3663.70(12020.00)
2878.50	70.84	169.77(330.00)	3657.60(12000.00)
2883.00	78.00	169.77(330.00)	3694.18(12120.00)
2883.50	78.00	164.62(320.00)	3694.18(12120.00)
2889.00	78.00	174.91(340.00)	3377.18(11080.00)
2893.00	64.03	185.20(360.00)	2895.60(9500.00)
2894.00	31.10	205.78(400.00)	2663.95(8740.00)
2898.00	31.10	231.50(450.00)	2023.87(6640.00)
2901.00	31.10	257.22(500.00)	1551.43(5090.00)
2905.00	31.10	257.22(500.00)	1066.80(3500.00)
2907.00	31.10	252.08(490.00)	908.30(2980.00)
2908.50	59.18	246.93(480.00)	890.02(2920.00)
2911.00	77.53	241.79(470.00)	950.98(3120.00)
2916.00	78.00	221.21(430.00)	1377.70(4520.00)
2921.00	78.00	205.78(400.00)	1947.67(6390.00)
2926.00	78.00	200.63(390.00)	2401.82(7880.00)
2931.00	78.00	190.34(370.00)	2718.82(8920.00)
2936.00	78.00	180.06(350.00)	2938.27(9640.00)
2941.00	78.00	185.20(360.00)	3054.13(10020.00)

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2951.00	78.00	185.20 (360.00)	3182.11 (10440.00)
2954.00	78.00	185.20 (360.00)	3188.21 (10460.00)
2956.00	78.00	185.20 (360.00)	3185.16 (10450.00)
2961.00	78.00	185.20 (360.00)	3212.59 (10540.00)
2966.00	78.00	180.06 (350.00)	3249.17 (10660.00)
2971.00	78.00	180.06 (350.00)	3322.32 (10900.00)
2976.00	61.00	180.06 (350.00)	3429.00 (11250.00)
2981.00	60.08	180.06 (350.00)	3535.68 (11600.00)
2986.00	57.71	174.91 (340.00)	3602.74 (11820.00)
2991.00	52.07	169.77 (330.00)	3608.83 (11840.00)
2996.00	49.09	169.77 (330.00)	3596.64 (11800.00)
3001.00	52.07	164.62 (320.00)	3633.22 (11920.00)
3006.00	52.07	164.62 (320.00)	3657.60 (12000.00)
3009.00	64.03	159.48 (310.00)	3651.50 (11980.00)
3016.00	64.03	164.62 (320.00)	3645.41 (11960.00)
3021.00	64.03	164.62 (320.00)	3639.31 (11940.00)
3026.00	64.03	159.48 (310.00)	3645.41 (11960.00)
3031.00	64.03	159.48 (310.00)	3663.70 (12020.00)
3036.00	56.13	159.48 (310.00)	3672.84 (12050.00)
3041.00	52.07	159.48 (310.00)	3663.70 (12020.00)
3046.00	61.00	164.62 (320.00)	3657.60 (12000.00)
3046.50	67.85	164.62 (320.00)	3657.60 (12000.00)
3047.00	71.25	169.77 (330.00)	3663.70 (12020.00)
3051.00	78.00	180.06 (350.00)	3633.22 (11920.00)
3058.00	61.00	190.34 (370.00)	2871.22 (9420.00)
3061.00	31.10	205.78 (400.00)	2414.02 (7920.00)
3066.00	31.10	221.21 (430.00)	1719.07 (5640.00)
3071.00	31.10	244.36 (475.00)	1036.32 (3400.00)
3073.00	31.10	241.79 (470.00)	950.98 (3120.00)
3076.00	77.53	231.50 (450.00)	999.74 (3280.00)
3081.00	78.00	210.92 (410.00)	1463.04 (4800.00)
3086.00	78.00	190.34 (370.00)	1959.86 (6430.00)
3091.00	78.00	180.06 (350.00)	2328.67 (7640.00)
3096.00	78.00	174.91 (340.00)	2633.47 (8640.00)
3101.00	78.00	169.77 (330.00)	2895.60 (9500.00)
3106.00	78.00	159.48 (310.00)	3008.38 (9870.00)
3111.00	78.00	205.78 (400.00)	2813.30 (9230.00)
3116.00	78.00	244.36 (475.00)	2590.80 (8500.00)
3121.00	78.00	257.22 (500.00)	2340.86 (7680.00)
3126.00	78.00	241.79 (470.00)	2657.86 (8720.00)
3131.00	71.67	190.34 (370.00)	3517.39 (11540.00)
3136.00	68.59	144.04 (280.00)	4413.50 (14480.00)
3141.00	66.31	113.18 (220.00)	5187.70 (17020.00)
3146.00	65.54	87.46 (170.00)	5687.57 (18660.00)
3151.00	70.84	110.61 (215.00)	6050.28 (19850.00)
3156.00	71.67	113.18 (220.00)	6248.40 (20500.00)
3184.00	52.07	141.47 (275.00)	6096.00 (20000.00)
3185.00	52.07	138.90 (270.00)	6096.00 (20000.00)
3305.00	56.92	128.61 (250.00)	6096.00 (20000.00)
3335.00	56.92	128.61 (250.00)	6096.00 (20000.00)

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3475.00	52.07	128.61 (250.00)	6096.00 (20000.00)
3485.00	43.10	128.61 (250.00)	6096.00 (20000.00)
3495.00	52.07	138.90 (270.00)	6096.00 (20000.00)
3785.00	52.07	138.90 (270.00)	6096.00 (20000.00)
3786.00	52.07	138.90 (270.00)	6096.00 (20000.00)
3906.00	56.92	128.61 (250.00)	6096.00 (20000.00)
3936.00	56.92	128.61 (250.00)	6096.00 (20000.00)
4076.00	52.07	128.61 (250.00)	6096.00 (20000.00)
4086.00	43.10	128.61 (250.00)	6096.00 (20000.00)
4096.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4386.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4387.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4507.00	56.92	128.61 (250.00)	6096.00 (20000.00)
4537.00	56.92	128.61 (250.00)	6096.00 (20000.00)
4677.00	52.07	128.61 (250.00)	6096.00 (20000.00)
4687.00	43.10	128.61 (250.00)	6096.00 (20000.00)
4697.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4987.00	52.07	138.90 (270.00)	6096.00 (20000.00)
4988.00	43.10	128.61 (250.00)	6096.00 (20000.00)
5588.00	43.10	128.61 (250.00)	365.76 (1200.00)
5589.00	63.29	74.59 (145.00)	359.66 (1180.00)
5596.00	64.03	76.14 (148.00)	359.66 (1180.00)
5601.00	67.09	77.17 (150.00)	356.62 (1170.00)
5606.00	58.17	75.62 (147.00)	359.66 (1180.00)
5611.00	77.53	76.14 (148.00)	350.52 (1150.00)
5616.00	68.22	77.17 (150.00)	353.57 (1160.00)
5621.00	67.09	78.20 (152.00)	365.76 (1200.00)
5626.00	67.47	78.20 (152.00)	371.86 (1220.00)
5631.00	64.03	77.17 (150.00)	381.00 (1250.00)
5634.50	53.56	77.17 (150.00)	377.95 (1240.00)
5641.00	65.54	77.17 (150.00)	353.57 (1160.00)
5642.00	70.84	77.17 (150.00)	353.57 (1160.00)
5646.00	62.57	78.71 (153.00)	347.47 (1140.00)
5651.00	65.54	77.17 (150.00)	350.52 (1150.00)
5656.00	61.00	77.17 (150.00)	350.52 (1150.00)
5661.00	67.85	77.17 (150.00)	345.95 (1135.00)
5664.00	63.29	77.17 (150.00)	347.47 (1140.00)
5666.00	71.67	77.17 (150.00)	353.57 (1160.00)
5670.00	52.07	77.17 (150.00)	362.71 (1190.00)
5676.00	67.85	76.14 (148.00)	359.66 (1180.00)
5680.00	57.71	77.17 (150.00)	347.47 (1140.00)
5686.00	67.09	77.17 (150.00)	316.99 (1040.00)
5691.00	57.71	79.74 (155.00)	304.80 (1000.00)
5696.00	62.20	77.17 (150.00)	292.61 (960.00)
5701.00	57.90	77.17 (150.00)	262.13 (860.00)
5706.00	46.10	77.17 (150.00)	237.74 (780.00)
5711.00	58.44	76.14 (148.00)	204.22 (670.00)
5714.00	76.32	77.17 (150.00)	188.98 (620.00)
5717.00	60.08	81.80 (159.00)	173.74 (570.00)
5718.00	57.71	81.28 (158.00)	167.64 (550.00)

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5721.00	46.10	79.74 (155.00)	161.54 (530.00)
5726.00	61.82	77.17 (150.00)	134.11 (440.00)
5729.50	56.92	77.17 (150.00)	106.68 (350.00)
5731.00	63.29	77.17 (150.00)	85.34 (280.00)
5737.00	70.06	79.74 (155.00)	60.96 (200.00)
5739.50	55.00	82.31 (160.00)	51.82 (170.00)
5741.00	37.10	82.31 (160.00)	45.72 (150.00)
5746.00	61.42	77.17 (150.00)	24.38 (80.00)
5747.50	52.07	77.17 (150.00)	21.34 (70.00)
5751.00	58.00	77.17 (150.00)	12.19 (40.00)
5752.00	68.59	77.17 (150.00)	6.10 (20.00)
5753.00	75.52	79.74 (155.00)	.00 (.00)
5757.00	78.50	.00 (.00)	.00 (.00)
5761.00	66.31	.00 (.00)	.00 (.00)
5959.00	34.10	.00 (.00)	.00 (.00)

F404-GE-400 DUTY TEST CYCLE #4

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
30.00	34.10	.00 (.00)	.00 (.00)
60.00	34.10	.00 (.00)	.00 (.00)
90.00	34.10	.00 (.00)	.00 (.00)
120.00	60.08	.00 (.00)	.00 (.00)
125.00	34.10	.00 (.00)	.00 (.00)
155.00	60.08	.00 (.00)	.00 (.00)
160.00	34.10	.00 (.00)	.00 (.00)
200.00	34.10	.00 (.00)	.00 (.00)
210.00	79.00	.00 (.00)	.00 (.00)
220.00	34.10	.00 (.00)	.00 (.00)
1200.00	34.10	.00 (.00)	.00 (.00)
1201.00	53.56	.00 (.00)	.00 (.00)
1208.00	71.67	15.43 (30.00)	.00 (.00)
1212.00	71.67	82.31 (160.00)	9.14 (30.00)
1217.00	78.00	90.54 (176.00)	67.06 (220.00)
1222.00	78.00	96.20 (187.00)	115.82 (380.00)
1227.00	78.00	102.89 (200.00)	176.78 (580.00)
1228.00	64.03	81.80 (159.00)	198.12 (650.00)
1233.00	69.32	82.31 (160.00)	179.83 (590.00)
1238.00	34.10	82.31 (160.00)	172.21 (565.00)
1243.00	66.31	82.31 (160.00)	134.11 (440.00)
1248.00	61.00	82.31 (160.00)	112.78 (370.00)
1253.00	56.92	82.31 (160.00)	91.44 (300.00)
1258.00	40.10	82.31 (160.00)	60.96 (200.00)
1263.00	67.85	82.31 (160.00)	30.48 (100.00)
1266.00	49.09	82.31 (160.00)	12.19 (40.00)
1268.00	68.59	82.31 (160.00)	.00 (.00)
1271.00	71.67	84.37 (164.00)	9.14 (30.00)
1273.00	78.00	87.46 (170.00)	18.29 (60.00)
1278.00	78.50	90.54 (176.00)	67.06 (220.00)
1283.00	78.50	96.20 (187.00)	115.82 (380.00)
1288.00	78.50	102.89 (200.00)	176.78 (580.00)
1293.00	55.00	97.74 (190.00)	195.07 (640.00)
1353.00	57.71	92.60 (180.00)	198.12 (650.00)
1358.00	40.10	82.31 (160.00)	182.88 (600.00)
1363.00	56.92	82.31 (160.00)	179.83 (590.00)
1423.00	40.10	79.74 (155.00)	182.88 (600.00)
1483.00	57.71	82.31 (160.00)	193.55 (635.00)
1513.00	64.03	81.80 (159.00)	198.12 (650.00)
1514.00	64.03	81.80 (159.00)	198.12 (650.00)
1519.00	69.32	82.31 (160.00)	179.83 (590.00)
1524.00	34.10	82.31 (160.00)	172.21 (565.00)
1529.00	66.31	82.31 (160.00)	134.11 (440.00)
1534.00	61.00	82.31 (160.00)	112.78 (370.00)
1539.00	56.92	82.31 (160.00)	91.44 (300.00)
1544.00	40.10	82.31 (160.00)	60.96 (200.00)
1549.00	67.85	82.31 (160.00)	30.48 (100.00)

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1552.00	49.09	82.31 (160.00)	12.19 (40.00)
1554.00	68.59	82.31 (160.00)	.00 (.00)
1557.00	71.67	84.37 (164.00)	9.14 (30.00)
1559.00	78.00	87.46 (170.00)	18.29 (60.00)
1564.00	78.50	90.54 (176.00)	67.06 (220.00)
1569.00	78.50	96.20 (187.00)	115.82 (380.00)
1574.00	78.50	102.89 (200.00)	176.78 (580.00)
1579.00	55.00	97.74 (190.00)	195.07 (640.00)
1639.00	57.71	92.60 (180.00)	198.12 (650.00)
1644.00	40.10	82.31 (160.00)	182.88 (600.00)
1649.00	56.92	82.31 (160.00)	179.83 (590.00)
1709.00	40.10	79.74 (155.00)	182.88 (600.00)
1769.00	57.71	82.31 (160.00)	193.55 (635.00)
1799.00	64.03	81.80 (159.00)	198.12 (650.00)
1800.00	64.03	81.80 (159.00)	198.12 (650.00)
1805.00	69.32	82.31 (160.00)	179.83 (590.00)
1810.00	34.10	82.31 (160.00)	172.21 (565.00)
1815.00	66.31	82.31 (160.00)	134.11 (440.00)
1820.00	61.00	82.31 (160.00)	112.78 (370.00)
1825.00	56.92	82.31 (160.00)	91.44 (300.00)
1830.00	40.10	82.31 (160.00)	60.96 (200.00)
1835.00	67.85	82.31 (160.00)	30.48 (100.00)
1838.00	49.09	82.31 (160.00)	12.19 (40.00)
1840.00	68.59	82.31 (160.00)	.00 (.00)
1843.00	71.67	84.37 (164.00)	9.14 (30.00)
1845.00	78.00	87.46 (170.00)	18.29 (60.00)
1850.00	78.50	90.54 (176.00)	67.06 (220.00)
1855.00	78.50	96.20 (187.00)	115.82 (380.00)
1860.00	78.50	102.89 (200.00)	176.78 (580.00)
1865.00	55.00	97.74 (190.00)	195.07 (640.00)
1925.00	57.71	92.60 (180.00)	198.12 (650.00)
1930.00	40.10	82.31 (160.00)	182.88 (600.00)
1935.00	56.92	82.31 (160.00)	179.83 (590.00)
1995.00	40.10	79.74 (155.00)	182.88 (600.00)
2055.00	57.71	82.31 (160.00)	193.55 (635.00)
2085.00	64.03	81.80 (159.00)	198.12 (650.00)
2086.00	64.03	81.80 (159.00)	198.12 (650.00)
2091.00	69.32	82.31 (160.00)	179.83 (590.00)
2096.00	34.10	82.31 (160.00)	172.21 (565.00)
2101.00	66.31	82.31 (160.00)	134.11 (440.00)
2106.00	61.00	82.31 (160.00)	112.78 (370.00)
2111.00	56.92	82.31 (160.00)	91.44 (300.00)
2116.00	40.10	82.31 (160.00)	60.96 (200.00)
2121.00	67.85	82.31 (160.00)	30.48 (100.00)
2124.00	49.09	82.31 (160.00)	12.19 (40.00)
2126.00	68.59	82.31 (160.00)	.00 (.00)
2129.00	71.67	84.37 (164.00)	9.14 (30.00)
2131.00	78.00	87.46 (170.00)	18.29 (60.00)
2136.00	78.50	90.54 (176.00)	67.06 (220.00)
2141.00	78.50	96.20 (187.00)	115.82 (380.00)

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2146.00	78.50	102.89 (200.00)	176.78 (580.00)
2151.00	55.00	97.74 (190.00)	195.07 (640.00)
2211.00	57.71	92.60 (180.00)	198.12 (650.00)
2216.00	40.10	82.31 (160.00)	182.88 (600.00)
2221.00	56.92	82.31 (160.00)	179.83 (590.00)
2281.00	40.10	79.74 (155.00)	182.88 (600.00)
2341.00	57.71	82.31 (160.00)	193.55 (635.00)
2371.00	64.03	81.80 (159.00)	198.12 (650.00)
2372.00	64.03	81.80 (159.00)	198.12 (650.00)
2377.00	69.32	82.31 (160.00)	179.83 (590.00)
2382.00	34.10	82.31 (160.00)	172.21 (565.00)
2387.00	66.31	82.31 (160.00)	134.11 (440.00)
2392.00	61.00	82.31 (160.00)	112.78 (370.00)
2397.00	56.92	82.31 (160.00)	91.44 (300.00)
2402.00	40.10	82.31 (160.00)	60.96 (200.00)
2407.00	67.85	82.31 (160.00)	30.48 (100.00)
2410.00	49.09	82.31 (160.00)	12.19 (40.00)
2412.00	68.59	82.31 (160.00)	.00 (.00)
2415.00	71.67	84.37 (164.00)	9.14 (30.00)
2417.00	78.00	87.46 (170.00)	18.29 (60.00)
2422.00	78.50	90.54 (176.00)	67.06 (220.00)
2427.00	78.50	96.20 (187.00)	115.82 (380.00)
2432.00	78.50	102.89 (200.00)	176.78 (580.00)
2437.00	55.00	97.74 (190.00)	195.07 (640.00)
2497.00	57.71	92.60 (180.00)	198.12 (650.00)
2502.00	40.10	82.31 (160.00)	182.88 (600.00)
2507.00	56.92	82.31 (160.00)	179.83 (590.00)
2567.00	40.10	79.74 (155.00)	182.88 (600.00)
2627.00	57.71	82.31 (160.00)	193.55 (635.00)
2657.00	64.03	81.80 (159.00)	198.12 (650.00)
2658.00	64.03	81.80 (159.00)	198.12 (650.00)
2663.00	69.32	82.31 (160.00)	179.83 (590.00)
2668.00	34.10	82.31 (160.00)	172.21 (565.00)
2673.00	66.31	82.31 (160.00)	134.11 (440.00)
2678.00	61.00	82.31 (160.00)	112.78 (370.00)
2683.00	56.92	82.31 (160.00)	91.44 (300.00)
2688.00	40.10	82.31 (160.00)	60.96 (200.00)
2693.00	67.85	82.31 (160.00)	30.48 (100.00)
2696.00	49.09	82.31 (160.00)	12.19 (40.00)
2698.00	68.59	82.31 (160.00)	.00 (.00)
2701.00	71.67	84.37 (164.00)	9.14 (30.00)
2703.00	78.00	87.46 (170.00)	18.29 (60.00)
2708.00	78.50	90.54 (176.00)	67.06 (220.00)
2713.00	78.50	96.20 (187.00)	115.82 (380.00)
2718.00	78.50	102.89 (200.00)	176.78 (580.00)
2723.00	55.00	97.74 (190.00)	195.07 (640.00)
2783.00	57.71	92.60 (180.00)	198.12 (650.00)
2788.00	40.10	82.31 (160.00)	182.88 (600.00)
2793.00	56.92	82.31 (160.00)	179.83 (590.00)
2853.00	40.10	79.74 (155.00)	182.88 (600.00)

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2913.00	57.71	82.31 (160.00)	193.55 (635.00)
2943.00	64.03	81.80 (159.00)	198.12 (650.00)
2944.00	64.03	81.80 (159.00)	198.12 (650.00)
2949.00	69.32	82.31 (160.00)	179.83 (590.00)
2954.00	34.10	82.31 (160.00)	172.21 (565.00)
2959.00	66.31	82.31 (160.00)	134.11 (440.00)
2964.00	61.00	82.31 (160.00)	112.78 (370.00)
2969.00	56.92	82.31 (160.00)	91.44 (300.00)
2974.00	40.10	82.31 (160.00)	60.96 (200.00)
2979.00	67.85	82.31 (160.00)	30.48 (100.00)
2982.00	49.09	82.31 (160.00)	12.19 (40.00)
2984.00	68.59	82.31 (160.00)	.00 (.00)
2987.00	71.67	84.37 (164.00)	9.14 (30.00)
2989.00	78.00	87.46 (170.00)	18.29 (60.00)
2994.00	78.50	90.54 (176.00)	67.06 (220.00)
2999.00	78.50	96.20 (187.00)	115.82 (380.00)
3004.00	78.50	102.89 (200.00)	176.78 (580.00)
3009.00	55.00	97.74 (190.00)	195.07 (640.00)
3069.00	57.71	92.60 (180.00)	198.12 (650.00)
3074.00	40.10	82.31 (160.00)	182.88 (600.00)
3079.00	56.92	82.31 (160.00)	179.83 (590.00)
3139.00	40.10	79.74 (155.00)	182.88 (600.00)
3199.00	57.71	82.31 (160.00)	193.55 (635.00)
3229.00	64.03	81.80 (159.00)	198.12 (650.00)
3230.00	64.03	81.80 (159.00)	198.12 (650.00)
3235.00	69.32	82.31 (160.00)	179.83 (590.00)
3240.00	34.10	82.31 (160.00)	172.21 (565.00)
3245.00	66.31	82.31 (160.00)	134.11 (440.00)
3250.00	61.00	82.31 (160.00)	112.78 (370.00)
3255.00	56.92	82.31 (160.00)	91.44 (300.00)
3260.00	40.10	82.31 (160.00)	60.96 (200.00)
3265.00	67.85	82.31 (160.00)	30.48 (100.00)
3268.00	49.09	82.31 (160.00)	12.19 (40.00)
3270.00	68.59	82.31 (160.00)	.00 (.00)
3273.00	71.67	84.37 (164.00)	9.14 (30.00)
3275.00	78.00	87.46 (170.00)	18.29 (60.00)
3280.00	78.50	90.54 (176.00)	67.06 (220.00)
3285.00	78.50	96.20 (187.00)	115.82 (380.00)
3290.00	78.50	102.89 (200.00)	176.78 (580.00)
3295.00	55.00	97.74 (190.00)	195.07 (640.00)
3355.00	57.71	92.60 (180.00)	198.12 (650.00)
3360.00	40.10	82.31 (160.00)	182.88 (600.00)
3365.00	56.92	82.31 (160.00)	179.83 (590.00)
3425.00	40.10	79.74 (155.00)	182.88 (600.00)
3485.00	57.71	82.31 (160.00)	193.55 (635.00)
3515.00	64.03	81.80 (159.00)	198.12 (650.00)
3516.00	64.03	81.80 (159.00)	198.12 (650.00)
3521.00	69.32	82.31 (160.00)	179.83 (590.00)
3526.00	34.10	82.31 (160.00)	172.21 (565.00)
3531.00	66.31	82.31 (160.00)	134.11 (440.00)

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3536.00	61.00	82.31 (160.00)	112.78 (370.00)
3541.00	56.92	82.31 (160.00)	91.44 (300.00)
3546.00	40.10	82.31 (160.00)	60.96 (200.00)
3551.00	67.85	82.31 (160.00)	30.48 (100.00)
3554.00	49.09	82.31 (160.00)	12.19 (40.00)
3556.00	68.59	82.31 (160.00)	.00 (.00)
3559.00	71.67	84.37 (164.00)	9.14 (30.00)
3561.00	78.00	87.46 (170.00)	18.29 (60.00)
3566.00	78.50	90.54 (176.00)	67.06 (220.00)
3571.00	78.50	96.20 (187.00)	115.82 (380.00)
3576.00	78.50	102.89 (200.00)	176.78 (580.00)
3581.00	55.00	97.74 (190.00)	195.07 (640.00)
3641.00	57.71	92.60 (180.00)	198.12 (650.00)
3646.00	40.10	82.31 (160.00)	182.88 (600.00)
3651.00	56.92	82.31 (160.00)	179.83 (590.00)
3711.00	40.10	79.74 (155.00)	182.88 (600.00)
3771.00	57.71	82.31 (160.00)	193.55 (635.00)
3801.00	64.03	81.80 (159.00)	198.12 (650.00)
3802.00	64.03	81.80 (159.00)	198.12 (650.00)
3807.00	69.32	82.31 (160.00)	179.83 (590.00)
3812.00	34.10	82.31 (160.00)	172.21 (565.00)
3817.00	66.31	82.31 (160.00)	134.11 (440.00)
3822.00	61.00	82.31 (160.00)	112.78 (370.00)
3827.00	56.92	82.31 (160.00)	91.44 (300.00)
3832.00	40.10	82.31 (160.00)	60.96 (200.00)
3837.00	67.85	82.31 (160.00)	30.48 (100.00)
3840.00	49.09	82.31 (160.00)	12.19 (40.00)
3842.00	68.59	82.31 (160.00)	.00 (.00)
3845.00	71.67	84.37 (164.00)	9.14 (30.00)
3847.00	78.00	87.46 (170.00)	18.29 (60.00)
3852.00	78.50	90.54 (176.00)	67.06 (220.00)
3857.00	78.50	96.20 (187.00)	115.82 (380.00)
3862.00	78.50	102.89 (200.00)	176.78 (580.00)
3867.00	55.00	97.74 (190.00)	195.07 (640.00)
3927.00	57.71	92.60 (180.00)	198.12 (650.00)
3932.00	40.10	82.31 (160.00)	182.88 (600.00)
3937.00	56.92	82.31 (160.00)	179.83 (590.00)
3997.00	40.10	79.74 (155.00)	182.88 (600.00)
4057.00	57.71	82.31 (160.00)	193.55 (635.00)
4087.00	64.03	81.80 (159.00)	198.12 (650.00)
4088.00	64.03	81.80 (159.00)	198.12 (650.00)
4093.00	69.32	82.31 (160.00)	179.83 (590.00)
4098.00	34.10	82.31 (160.00)	172.21 (565.00)
4103.00	66.31	82.31 (160.00)	134.11 (440.00)
4108.00	61.00	82.31 (160.00)	112.78 (370.00)
4113.00	56.92	82.31 (160.00)	91.44 (300.00)
4118.00	40.10	82.31 (160.00)	60.96 (200.00)
4123.00	67.85	82.31 (160.00)	30.48 (100.00)
4126.00	49.09	82.31 (160.00)	12.19 (40.00)
4128.00	68.59	82.31 (160.00)	.00 (.00)

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4131.00	71.67	84.37 (164.00)	9.14 (30.00)
4133.00	78.00	87.46 (170.00)	18.29 (60.00)
4138.00	78.50	90.54 (176.00)	67.06 (220.00)
4143.00	78.50	96.20 (187.00)	115.82 (380.00)
4148.00	78.50	102.89 (200.00)	176.78 (580.00)
4153.00	55.00	97.74 (190.00)	195.07 (640.00)
4213.00	57.71	92.60 (180.00)	198.12 (650.00)
4218.00	40.10	82.31 (160.00)	182.88 (600.00)
4223.00	56.92	82.31 (160.00)	179.83 (590.00)
4283.00	40.10	79.74 (155.00)	182.88 (600.00)
4343.00	57.71	82.31 (160.00)	193.55 (635.00)
4373.00	64.03	81.80 (159.00)	198.12 (650.00)
4374.00	64.03	81.80 (159.00)	198.12 (650.00)
4379.00	69.32	82.31 (160.00)	179.83 (590.00)
4384.00	34.10	82.31 (160.00)	172.21 (565.00)
4389.00	66.31	82.31 (160.00)	134.11 (440.00)
4394.00	61.00	82.31 (160.00)	112.78 (370.00)
4399.00	56.92	82.31 (160.00)	91.44 (300.00)
4404.00	40.10	82.31 (160.00)	60.96 (200.00)
4409.00	67.85	82.31 (160.00)	30.48 (100.00)
4412.00	49.09	82.31 (160.00)	12.19 (40.00)
4414.00	68.59	82.31 (160.00)	.00 (.00)
4417.00	71.67	84.37 (164.00)	9.14 (30.00)
4419.00	78.00	87.46 (170.00)	18.29 (60.00)
4424.00	78.50	90.54 (176.00)	67.06 (220.00)
4429.00	78.50	96.20 (187.00)	115.82 (380.00)
4434.00	78.50	102.89 (200.00)	176.78 (580.00)
4439.00	55.00	97.74 (190.00)	195.07 (640.00)
4499.00	57.71	92.60 (180.00)	198.12 (650.00)
4504.00	40.10	82.31 (160.00)	182.88 (600.00)
4509.00	56.92	82.31 (160.00)	179.83 (590.00)
4569.00	40.10	79.74 (155.00)	182.88 (600.00)
4629.00	57.71	82.31 (160.00)	193.55 (635.00)
4659.00	64.03	81.80 (159.00)	198.12 (650.00)
4660.00	64.03	81.80 (159.00)	182.88 (600.00)
4661.50	70.06	82.31 (160.00)	179.83 (590.00)
4665.00	61.00	83.34 (162.00)	178.31 (585.00)
4669.00	34.10	82.31 (160.00)	172.21 (565.00)
4672.00	64.03	79.22 (154.00)	146.30 (480.00)
4675.00	66.31	82.31 (160.00)	134.11 (440.00)
4680.00	61.42	82.31 (160.00)	112.78 (370.00)
4685.00	57.71	82.31 (160.00)	91.44 (300.00)
4686.00	53.56	82.31 (160.00)	82.30 (270.00)
4687.50	53.56	82.31 (160.00)	79.25 (260.00)
4690.00	40.10	82.31 (160.00)	60.96 (200.00)
4693.00	67.85	83.85 (163.00)	30.48 (100.00)
4698.00	53.56	83.85 (163.00)	12.19 (40.00)
4699.00	53.56	84.37 (164.00)	9.14 (30.00)
4705.00	34.10	77.17 (150.00)	.00 (.00)
4720.00	34.10	15.43 (30.00)	.00 (.00)

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4778.00	34.10	.00 (.00)	.00 (.00)
4780.00	34.10	.00 (.00)	.00 (.00)
4782.00	60.08	.00 (.00)	.00 (.00)
4800.00	34.10	.00 (.00)	.00 (.00)
4802.00	34.10	.00 (	.00)	.00 (	.00)
4804.00	60.08	.00 (	.00)	.00 (	.00)
5260.00	34.10	.00 (	.00)	.00 (	.00)

F404-GE-400 DUTY TEST CYCLE #5

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
30.00	34.10	.00 (.00)	.00 (.00)
60.00	34.10	.00 (.00)	.00 (.00)
90.00	34.10	.00 (.00)	.00 (.00)
120.00	60.08	.00 (.00)	.00 (.00)
125.00	34.10	.00 (.00)	.00 (.00)
155.00	60.08	.00 (.00)	.00 (.00)
160.00	34.10	.00 (.00)	.00 (.00)
200.00	34.10	.00 (.00)	.00 (.00)
210.00	79.00	.00 (.00)	.00 (.00)
220.00	34.10	.00 (.00)	.00 (.00)
1200.00	34.10	.00 (.00)	.00 (.00)
1201.00	79.00	.00 (.00)	.00 (.00)
1212.50	130.00	41.16 (80.00)	12.19 (40.00)
1217.50	130.00	61.73 (120.00)	15.24 (50.00)
1222.50	130.00	79.74 (155.00)	18.29 (60.00)
1227.50	130.00	92.60 (180.00)	30.48 (100.00)
1232.50	130.00	110.61 (215.00)	68.58 (225.00)
1237.50	130.00	123.47 (240.00)	140.21 (460.00)
1242.50	78.50	133.76 (260.00)	268.22 (880.00)
1244.50	69.32	138.90 (270.00)	335.28 (1100.00)
1246.00	47.60	138.90 (270.00)	350.52 (1150.00)
1247.50	35.60	138.90 (270.00)	362.71 (1190.00)
1250.50	58.17	138.90 (270.00)	377.95 (1240.00)
1251.50	58.44	138.90 (270.00)	379.48 (1245.00)
1257.50	62.57	138.90 (270.00)	379.78 (1246.00)
1262.50	62.57	138.90 (270.00)	388.62 (1275.00)
1267.50	65.92	141.47 (275.00)	402.34 (1320.00)
1272.50	68.59	149.19 (290.00)	420.62 (1380.00)
1277.50	63.29	154.33 (300.00)	420.62 (1380.00)
1282.50	63.29	151.76 (295.00)	449.58 (1475.00)
1287.50	71.67	151.76 (295.00)	518.16 (1700.00)
1292.50	78.00	154.33 (300.00)	630.94 (2070.00)
1297.50	75.52	154.33 (300.00)	774.19 (2540.00)
1302.50	75.52	149.19 (290.00)	960.12 (3150.00)
1307.50	75.52	149.19 (290.00)	1104.90 (3625.00)
1311.50	75.93	149.19 (290.00)	1216.15 (3990.00)
1315.50	78.50	149.19 (290.00)	1310.64 (4300.00)
1316.50	78.00	154.33 (300.00)	1341.12 (4400.00)
1326.00	78.00	180.06 (350.00)	1341.12 (4400.00)
1327.00	78.00	180.06 (350.00)	1341.12 (4400.00)
1527.00	78.00	167.19 (325.00)	2743.20 (9000.00)
1727.00	78.00	154.33 (300.00)	4572.00 (15000.00)
1728.00	78.00	154.33 (300.00)	4572.00 (15000.00)
1758.00	46.10	155.36 (302.00)	4572.00 (15000.00)
2328.00	46.10	155.36 (302.00)	4572.00 (15000.00)
2508.00	78.00	123.47 (240.00)	6705.60 (22000.00)
2509.00	78.00	123.47 (240.00)	6705.60 (22000.00)

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2689.00	79.00	169.77 (330.00)	7010.40 (23000.00)
2869.00	79.00	154.33 (300.00)	8839.20 (29000.00)
3109.00	79.00	138.90 (270.00)	10668.00 (35000.00)
3169.00	88.84	133.76 (260.00)	12496.80 (41000.00)
3229.00	88.84	154.33 (300.00)	11887.20 (39000.00)
3239.00	99.88	180.06 (350.00)	11582.40 (38000.00)
3249.00	130.00	221.21 (430.00)	10972.80 (36000.00)
3259.00	130.00	272.66 (530.00)	10058.40 (33000.00)
3269.00	130.00	334.39 (650.00)	9753.60 (32000.00)
3289.00	130.00	365.26 (710.00)	9448.80 (31000.00)
3319.00	130.00	367.83 (715.00)	9387.84 (30800.00)
3339.00	78.00	318.96 (620.00)	8991.60 (29500.00)
3349.00	60.08	272.66 (530.00)	8549.64 (28050.00)
3409.00	57.71	164.62 (320.00)	6705.60 (22000.00)
3410.00	57.71	164.62 (320.00)	6705.60 (22000.00)
3425.00	66.31	185.20 (360.00)	6400.80 (21000.00)
3430.00	78.00	185.20 (360.00)	6400.80 (21000.00)
3437.00	78.00	200.63 (390.00)	6096.00 (20000.00)
3445.00	78.00	200.63 (390.00)	6096.00 (20000.00)
3450.00	57.71	185.20 (360.00)	6096.00 (20000.00)
3465.00	56.92	149.19 (290.00)	6400.80 (21000.00)
3468.00	56.92	149.19 (290.00)	6400.80 (21000.00)
3476.00	56.92	149.19 (290.00)	6400.80 (21000.00)
3479.00	37.10	149.19 (290.00)	6400.80 (21000.00)
3480.00	56.92	149.19 (290.00)	6400.80 (21000.00)
3493.00	37.10	149.19 (290.00)	6400.80 (21000.00)
3497.00	56.92	149.19 (290.00)	6248.40 (20500.00)
3500.00	56.92	154.33 (300.00)	6248.40 (20500.00)
3503.00	60.08	154.33 (300.00)	6248.40 (20500.00)
3507.00	66.31	154.33 (300.00)	6096.00 (20000.00)
3517.00	78.00	167.19 (325.00)	6096.00 (20000.00)
3520.00	78.00	185.20 (360.00)	6096.00 (20000.00)
3530.00	78.00	195.49 (380.00)	6096.00 (20000.00)
3536.00	78.00	200.63 (390.00)	6096.00 (20000.00)
3545.00	78.00	164.62 (320.00)	6400.80 (21000.00)
3553.00	78.00	154.33 (300.00)	6705.60 (22000.00)
3555.00	77.53	154.33 (300.00)	6705.60 (22000.00)
3562.00	64.78	149.19 (290.00)	6858.00 (22500.00)
3568.00	62.57	149.19 (290.00)	6858.00 (22500.00)
3578.00	66.31	149.19 (290.00)	6858.00 (22500.00)
3589.00	67.85	154.33 (300.00)	6858.00 (22500.00)
3594.00	77.00	154.33 (300.00)	6858.00 (22500.00)
3605.00	78.00	164.62 (320.00)	6766.56 (22200.00)
3650.00	66.31	226.36 (440.00)	3974.59 (13040.00)
3651.00	64.03	231.50 (450.00)	3974.59 (13040.00)
3662.00	62.20	231.50 (450.00)	4099.56 (13450.00)
3672.00	62.20	231.50 (450.00)	4017.26 (13180.00)
3682.00	62.20	231.50 (450.00)	3983.74 (13070.00)
3692.00	57.71	231.50 (450.00)	3962.40 (13000.00)
3702.00	68.22	221.21 (430.00)	3956.30 (12980.00)

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3707.00	130.00	231.50 (450.00)	3959.35 (12990.00)
3712.00	130.00	257.22 (500.00)	3962.40 (13000.00)
3717.00	130.00	282.94 (550.00)	3855.72 (12650.00)
3727.00	130.00	308.67 (600.00)	3742.94 (12280.00)
3735.00	130.00	334.39 (650.00)	3578.35 (11740.00)
3739.00	130.00	334.39 (650.00)	3590.54 (11780.00)
3746.00	78.00	308.67 (600.00)	3410.71 (11190.00)
3752.00	57.71	267.51 (520.00)	3840.48 (12600.00)
3755.00	57.90	257.22 (500.00)	4114.80 (13500.00)
3762.00	64.78	231.50 (450.00)	4541.52 (14900.00)
3772.00	57.71	231.50 (450.00)	4724.40 (15500.00)
3782.00	57.71	226.36 (440.00)	4328.16 (14200.00)
3832.00	64.03	231.50 (450.00)	3974.59 (13040.00)
3833.00	64.03	231.50 (450.00)	3974.59 (13040.00)
3863.00	58.00	149.19 (290.00)	3974.59 (13040.00)
4433.00	58.00	149.19 (290.00)	3974.59 (13040.00)
4463.00	64.03	231.50 (450.00)	3974.59 (13040.00)
4464.00	64.03	231.50 (450.00)	3974.59 (13040.00)
4470.00	63.29	231.50 (450.00)	4099.56 (13450.00)
4475.00	62.20	231.50 (450.00)	4099.56 (13450.00)
4480.00	61.82	231.50 (450.00)	4044.70 (13270.00)
4485.00	62.20	231.50 (450.00)	4017.26 (13180.00)
4490.00	62.20	231.50 (450.00)	3995.93 (13110.00)
4495.00	62.20	231.50 (450.00)	3983.74 (13070.00)
4500.00	62.93	231.50 (450.00)	3980.69 (13060.00)
4505.00	57.71	231.50 (450.00)	3962.40 (13000.00)
4510.00	57.71	226.36 (440.00)	3944.11 (12940.00)
4515.00	68.22	221.21 (430.00)	3956.30 (12980.00)
4518.00	130.00	226.36 (440.00)	3962.40 (13000.00)
4520.00	130.00	231.50 (450.00)	3959.35 (12990.00)
4524.50	130.00	257.22 (500.00)	4096.51 (13440.00)
4525.00	130.00	257.22 (500.00)	4166.62 (13670.00)
4526.00	130.00	257.22 (500.00)	3931.92 (12900.00)
4530.00	130.00	282.94 (550.00)	3855.72 (12650.00)
4535.00	130.00	303.52 (590.00)	3782.57 (12410.00)
4540.00	130.00	308.67 (600.00)	3742.94 (12280.00)
4545.00	130.00	313.81 (610.00)	3855.72 (12650.00)
4548.00	130.00	334.39 (650.00)	3578.35 (11740.00)
4549.00	130.00	334.39 (650.00)	3502.15 (11490.00)
4552.00	130.00	334.39 (650.00)	3590.54 (11780.00)
4555.00	130.00	318.96 (620.00)	3243.07 (10640.00)
4559.00	130.00	308.67 (600.00)	3410.71 (11190.00)
4560.00	58.17	303.52 (590.00)	3499.10 (11480.00)
4565.00	57.71	267.51 (520.00)	3864.86 (12680.00)
4567.00	57.71	257.22 (500.00)	4230.62 (13880.00)
4568.00	57.90	257.22 (500.00)	4114.80 (13500.00)
4570.00	58.78	244.36 (475.00)	4346.45 (14260.00)
4575.00	64.78	231.50 (450.00)	4544.57 (14910.00)
4578.00	67.85	226.36 (440.00)	3974.59 (13040.00)
4579.00	64.03	231.50 (450.00)	3974.59 (13040.00)
4609.00	58.00	149.19 (290.00)	3974.59 (13040.00)

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5179.00	58.00	149.19(290.00)	3974.59(13040.00)
5209.00	64.03	231.50(450.00)	3974.59(13040.00)
5210.00	64.03	231.50(450.00)	3974.59(13040.00)
5216.00	63.29	231.50(450.00)	4099.56(13450.00)
5221.00	62.20	231.50(450.00)	4099.56(13450.00)
5226.00	61.82	231.50(450.00)	4044.70(13270.00)
5231.00	62.20	231.50(450.00)	4017.26(13180.00)
5236.00	62.20	231.50(450.00)	3995.93(13110.00)
5241.00	62.20	231.50(450.00)	3983.74(13070.00)
5246.00	62.93	231.50(450.00)	3980.69(13060.00)
5251.00	57.71	231.50(450.00)	3962.40(13000.00)
5256.00	57.71	226.36(440.00)	3944.11(12940.00)
5261.00	68.22	221.21(430.00)	3956.30(12980.00)
5264.00	130.00	226.36(440.00)	3962.40(13000.00)
5266.00	130.00	231.50(450.00)	3959.35(12990.00)
5270.50	130.00	257.22(500.00)	4096.51(13440.00)
5271.00	130.00	257.22(500.00)	4166.62(13670.00)
5272.00	130.00	257.22(500.00)	3931.92(12900.00)
5276.00	130.00	282.94(550.00)	3855.72(12650.00)
5281.00	130.00	303.52(590.00)	3782.57(12410.00)
5286.00	130.00	308.67(600.00)	3742.94(12280.00)
5291.00	130.00	313.81(610.00)	3855.72(12650.00)
5294.00	130.00	334.39(650.00)	3578.35(11740.00)
5295.00	130.00	334.39(650.00)	3502.15(11490.00)
5298.00	130.00	334.39(650.00)	3590.54(11780.00)
5301.00	130.00	318.96(620.00)	3243.07(10640.00)
5305.00	130.00	308.67(600.00)	3410.71(11190.00)
5306.00	58.17	303.52(590.00)	3499.10(11480.00)
5311.00	57.71	267.51(520.00)	3864.86(12680.00)
5313.00	57.71	257.22(500.00)	4230.62(13880.00)
5314.00	57.90	257.22(500.00)	4114.80(13500.00)
5316.00	58.78	244.36(475.00)	4346.45(14260.00)
5321.00	64.78	231.50(450.00)	4544.57(14910.00)
5324.00	67.85	226.36(440.00)	3974.59(13040.00)
5325.00	64.03	231.50(450.00)	3974.59(13040.00)
5355.00	58.00	149.19(290.00)	3974.59(13040.00)
5925.00	58.00	149.19(290.00)	3974.59(13040.00)
5955.00	64.03	231.50(450.00)	3974.59(13040.00)
5956.00	64.03	231.50(450.00)	3974.59(13040.00)
5962.00	63.29	231.50(450.00)	4099.56(13450.00)
5967.00	62.20	231.50(450.00)	4099.56(13450.00)
5972.00	61.82	231.50(450.00)	4044.70(13270.00)
5977.00	62.20	231.50(450.00)	4017.26(13180.00)
5982.00	62.20	231.50(450.00)	3995.93(13110.00)
5987.00	62.20	231.50(450.00)	3983.74(13070.00)
5992.00	62.93	231.50(450.00)	3980.69(13060.00)
5997.00	57.71	231.50(450.00)	3962.40(13000.00)
6002.00	57.71	226.36(440.00)	3944.11(12940.00)
6007.00	68.22	221.21(430.00)	3956.30(12980.00)
6010.00	130.00	226.36(440.00)	3962.40(13000.00)

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6012.00	130.00	231.50 (450.00)	3959.35 (12990.00)
6016.50	130.00	257.22 (500.00)	4096.51 (13440.00)
6017.00	130.00	257.22 (500.00)	4166.62 (13670.00)
6018.00	130.00	257.22 (500.00)	3931.92 (12900.00)
6022.00	130.00	282.94 (550.00)	3855.72 (12650.00)
6027.00	130.00	303.52 (590.00)	3782.57 (12410.00)
6032.00	130.00	308.67 (600.00)	3742.94 (12280.00)
6037.00	130.00	313.81 (610.00)	3855.72 (12650.00)
6040.00	130.00	334.39 (650.00)	3578.35 (11740.00)
6041.00	130.00	334.39 (650.00)	3502.15 (11490.00)
6044.00	130.00	334.39 (650.00)	3590.54 (11780.00)
6047.00	130.00	318.96 (620.00)	3243.07 (10640.00)
6051.00	130.00	308.67 (600.00)	3410.71 (11190.00)
6052.00	58.17	303.52 (590.00)	3499.10 (11480.00)
6057.00	57.71	267.51 (520.00)	3864.86 (12680.00)
6059.00	57.71	257.22 (500.00)	4230.62 (13880.00)
6060.00	57.90	257.22 (500.00)	4114.80 (13500.00)
6062.00	58.78	244.36 (475.00)	4346.45 (14260.00)
6067.00	64.78	231.50 (450.00)	4544.57 (14910.00)
6070.00	67.85	226.36 (440.00)	3974.59 (13040.00)
6071.00	61.00	226.36 (440.00)	3974.59 (13040.00)
6191.00	62.93	146.62 (285.00)	3681.98 (12080.00)
6311.00	60.08	146.62 (285.00)	2584.70 (8480.00)
6431.00	52.07	149.19 (290.00)	2154.94 (7070.00)
6551.00	65.54	156.91 (305.00)	1767.84 (5800.00)
6671.00	65.92	149.19 (290.00)	1371.60 (4500.00)
6672.00	65.92	149.19 (290.00)	1371.60 (4500.00)
6732.00	64.03	154.33 (300.00)	1371.60 (4500.00)
6792.00	65.54	149.19 (290.00)	1341.12 (4400.00)
6852.00	64.03	149.19 (290.00)	1280.16 (4200.00)
6912.00	67.09	144.04 (280.00)	1249.68 (4100.00)
6972.00	65.92	133.76 (260.00)	1280.16 (4200.00)
7032.00	65.92	128.61 (250.00)	1249.68 (4100.00)
7092.00	65.92	128.61 (250.00)	1219.20 (4000.00)
7152.00	64.78	128.61 (250.00)	1219.20 (4000.00)
7212.00	64.03	128.61 (250.00)	1188.72 (3900.00)
7272.00	64.03	133.76 (260.00)	1066.80 (3500.00)
7332.00	60.08	133.76 (260.00)	914.40 (3000.00)
7392.00	59.18	128.61 (250.00)	762.00 (2500.00)
7452.00	64.03	128.61 (250.00)	640.08 (2100.00)
7512.00	60.08	133.76 (260.00)	609.60 (2000.00)
7513.00	46.10	126.04 (245.00)	597.41 (1960.00)
7518.00	46.10	126.04 (245.00)	591.31 (1940.00)
7521.00	34.10	126.04 (245.00)	585.22 (1920.00)
7526.00	34.10	128.61 (250.00)	548.64 (1800.00)
7531.00	34.10	128.61 (250.00)	515.11 (1690.00)
7536.00	34.10	126.04 (245.00)	493.78 (1620.00)
7541.00	34.10	126.04 (245.00)	481.58 (1580.00)
7546.00	34.10	120.89 (235.00)	466.34 (1530.00)
7551.00	34.10	115.75 (225.00)	469.39 (1540.00)

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7553.00	56.92	115.75 (225.00)	466.34 (1530.00)
7556.00	31.10	115.75 (225.00)	463.30 (1520.00)
7561.00	31.10	110.61 (215.00)	441.96 (1450.00)
7566.00	34.10	102.89 (200.00)	438.91 (1440.00)
7571.00	34.10	92.60 (180.00)	457.20 (1500.00)
7576.00	34.10	82.31 (160.00)	448.06 (1470.00)
7581.00	64.03	78.20 (152.00)	426.72 (1400.00)
7586.00	64.03	82.31 (160.00)	420.62 (1380.00)
7591.00	59.18	77.17 (150.00)	420.62 (1380.00)
7596.00	67.85	77.17 (150.00)	420.62 (1380.00)
7601.00	60.08	77.17 (150.00)	420.62 (1380.00)
7606.00	67.85	77.17 (150.00)	420.62 (1380.00)
7608.00	68.59	77.17 (150.00)	420.62 (1380.00)
7614.00	34.10	77.17 (150.00)	396.24 (1300.00)
7618.50	67.85	77.17 (150.00)	368.81 (1210.00)
7621.00	61.82	79.74 (155.00)	344.42 (1130.00)
7626.00	67.85	79.74 (155.00)	326.14 (1070.00)
7631.00	46.10	81.28 (158.00)	310.90 (1020.00)
7636.00	60.08	77.17 (150.00)	292.61 (960.00)
7641.00	64.03	78.20 (152.00)	259.08 (850.00)
7643.00	70.06	79.22 (154.00)	252.98 (830.00)
7646.00	59.18	82.31 (160.00)	243.84 (800.00)
7647.50	49.09	82.31 (160.00)	240.79 (790.00)
7651.00	60.08	78.20 (152.00)	234.70 (770.00)
7653.00	67.85	78.20 (152.00)	228.60 (750.00)
7656.00	61.82	80.77 (157.00)	219.46 (720.00)
7658.00	62.93	80.77 (157.00)	213.36 (700.00)
7666.00	64.03	81.80 (159.00)	182.88 (600.00)
7667.50	69.32	82.31 (160.00)	179.83 (590.00)
7671.00	61.82	83.34 (162.00)	178.31 (585.00)
7675.00	34.10	82.31 (160.00)	172.21 (565.00)
7678.00	64.03	79.22 (154.00)	146.30 (480.00)
7681.00	67.09	82.31 (160.00)	134.11 (440.00)
7686.00	61.00	82.31 (160.00)	112.78 (370.00)
7691.00	53.56	82.31 (160.00)	91.44 (300.00)
7692.50	46.10	82.31 (160.00)	82.30 (270.00)
7693.50	46.10	82.31 (160.00)	79.25 (260.00)
7696.00	34.10	82.31 (160.00)	60.96 (200.00)
7699.00	67.85	83.85 (163.00)	30.48 (100.00)
7704.00	46.10	83.85 (163.00)	12.19 (40.00)
7705.00	68.59	84.37 (164.00)	9.14 (30.00)
7706.00	71.87	86.94 (169.00)	9.14 (30.00)
7711.00	78.00	87.46 (170.00)	18.29 (60.00)
7716.00	78.50	90.54 (176.00)	67.06 (220.00)
7721.00	78.00	96.20 (187.00)	115.82 (380.00)
7726.00	78.50	102.89 (200.00)	176.78 (580.00)
7731.00	78.50	113.18 (220.00)	237.74 (780.00)
7736.00	78.00	123.47 (240.00)	300.23 (985.00)
7738.80	31.10	126.04 (245.00)	326.14 (1070.00)
7741.00	67.85	118.32 (230.00)	310.90 (1020.00)

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7744.00	67.47	126.04 (245.00)	371.86 (1220.00)
7746.00	64.03	128.61 (250.00)	381.00 (1250.00)
7751.00	59.18	128.61 (250.00)	434.34 (1425.00)
7751.50	46.10	128.61 (250.00)	438.91 (1440.00)
7756.00	57.71	128.61 (250.00)	457.20 (1500.00)
7761.00	57.71	128.61 (250.00)	466.34 (1530.00)
7766.00	40.10	131.18 (255.00)	466.34 (1530.00)
7771.00	37.10	131.18 (255.00)	463.30 (1520.00)
7776.00	55.00	131.18 (255.00)	454.15 (1490.00)
7781.00	56.92	131.18 (255.00)	460.25 (1510.00)
7786.00	46.10	131.18 (255.00)	451.10 (1480.00)
7791.00	46.10	131.18 (255.00)	451.10 (1480.00)
7796.00	46.10	131.18 (255.00)	457.20 (1500.00)
7801.00	46.10	131.18 (255.00)	448.06 (1470.00)
7806.00	46.10	128.61 (250.00)	445.01 (1460.00)
7811.00	46.10	128.61 (250.00)	451.10 (1480.00)
7816.00	46.10	126.04 (245.00)	464.82 (1525.00)
7821.00	46.10	126.04 (245.00)	460.25 (1510.00)
7826.00	46.10	126.04 (245.00)	460.25 (1510.00)
7831.00	46.10	126.04 (245.00)	460.25 (1510.00)
7841.00	46.10	126.04 (245.00)	475.49 (1560.00)
7848.00	46.10	126.04 (245.00)	487.68 (1600.00)
7856.00	46.10	126.04 (245.00)	469.39 (1540.00)
7866.00	46.10	128.61 (250.00)	441.96 (1450.00)
7876.00	46.10	128.61 (250.00)	448.06 (1470.00)
7886.00	46.10	128.61 (250.00)	448.06 (1470.00)
7896.00	46.10	128.61 (250.00)	448.06 (1470.00)
7906.00	46.10	128.61 (250.00)	448.06 (1470.00)
7916.00	52.07	128.61 (250.00)	441.96 (1450.00)
7921.00	57.71	128.61 (250.00)	451.10 (1480.00)
7926.00	46.10	128.61 (250.00)	445.01 (1460.00)
7931.00	44.60	128.61 (250.00)	445.01 (1460.00)
7941.00	43.10	126.04 (245.00)	445.01 (1460.00)
7951.00	40.10	123.47 (240.00)	451.10 (1480.00)
7961.00	38.60	123.47 (240.00)	451.10 (1480.00)
7971.00	38.60	120.89 (235.00)	451.10 (1480.00)
7974.00	57.71	120.89 (235.00)	451.10 (1480.00)
7986.00	43.10	120.89 (235.00)	451.10 (1480.00)
7995.50	58.00	120.89 (235.00)	451.10 (1480.00)
7998.00	31.10	120.89 (235.00)	445.01 (1460.00)
8006.00	31.10	113.18 (220.00)	441.96 (1450.00)
8016.00	34.10	95.17 (185.00)	463.30 (1520.00)
8019.00	34.10	90.54 (176.00)	463.30 (1520.00)
8020.00	64.03	81.80 (159.00)	198.12 (650.00)
8025.00	69.32	82.31 (160.00)	179.83 (590.00)
8030.00	34.10	82.31 (160.00)	172.21 (565.00)
8035.00	66.31	82.31 (160.00)	134.11 (440.00)
8040.00	61.00	82.31 (160.00)	112.78 (370.00)
8045.00	56.92	82.31 (160.00)	91.44 (300.00)
8050.00	40.10	82.31 (160.00)	60.96 (200.00)

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8055.00	67.85	82.31 (160.00)	30.48 (100.00)
8058.00	49.09	82.31 (160.00)	12.19 (40.00)
8050.00	68.59	82.31 (160.00)	.00 (.00)
8063.00	71.67	84.37 (164.00)	9.14 (30.00)
8065.00	78.00	87.46 (170.00)	18.29 (60.00)
8070.00	78.50	90.54 (176.00)	67.06 (220.00)
8075.00	78.50	96.20 (187.00)	115.82 (380.00)
8080.00	78.50	102.89 (200.00)	176.78 (580.00)
8085.00	55.00	97.74 (190.00)	195.07 (640.00)
8145.00	57.71	92.60 (180.00)	198.12 (650.00)
8150.00	40.10	82.31 (160.00)	182.88 (600.00)
8155.00	56.92	82.31 (160.00)	179.83 (590.00)
8215.00	40.10	79.74 (155.00)	182.88 (600.00)
8275.00	57.71	82.31 (160.00)	193.55 (635.00)
8305.00	64.03	81.80 (159.00)	198.12 (650.00)
8306.00	64.03	81.80 (159.00)	198.12 (650.00)
8311.00	69.32	82.31 (160.00)	179.83 (590.00)
8316.00	34.10	82.31 (160.00)	172.21 (565.00)
8321.00	66.31	82.31 (160.00)	134.11 (440.00)
8326.00	61.00	82.31 (160.00)	112.78 (370.00)
8331.00	56.92	82.31 (160.00)	91.44 (300.00)
8336.00	40.10	82.31 (160.00)	60.96 (200.00)
8341.00	67.85	82.31 (160.00)	30.48 (100.00)
8344.00	49.09	82.31 (160.00)	12.19 (40.00)
8346.00	68.59	82.31 (160.00)	.00 (.00)
8349.00	71.67	84.37 (164.00)	9.14 (30.00)
8351.00	78.00	87.46 (170.00)	18.29 (60.00)
8356.00	78.50	90.54 (176.00)	67.06 (220.00)
8361.00	78.50	96.20 (187.00)	115.82 (380.00)
8366.00	78.50	102.89 (200.00)	176.78 (580.00)
8371.00	55.00	97.74 (190.00)	195.07 (640.00)
8431.00	57.71	92.60 (180.00)	198.12 (650.00)
8436.00	40.10	82.31 (160.00)	182.88 (600.00)
8441.00	56.92	82.31 (160.00)	179.83 (590.00)
8501.00	40.10	79.74 (155.00)	182.88 (600.00)
8561.00	57.71	82.31 (160.00)	193.55 (635.00)
8591.00	64.03	81.80 (159.00)	198.12 (650.00)
8592.00	64.03	81.80 (159.00)	198.12 (650.00)
8597.00	69.32	82.31 (160.00)	179.83 (590.00)
8602.00	34.10	82.31 (160.00)	172.21 (565.00)
8607.00	66.31	82.31 (160.00)	134.11 (440.00)
8612.00	61.00	82.31 (160.00)	112.78 (370.00)
8617.00	56.92	82.31 (160.00)	91.44 (300.00)
8622.00	40.10	82.31 (160.00)	60.96 (200.00)
8627.00	67.85	82.31 (160.00)	30.48 (100.00)
8630.00	49.09	82.31 (160.00)	12.19 (40.00)
8632.00	68.59	82.31 (160.00)	.00 (.00)
8635.00	71.67	84.37 (164.00)	9.14 (30.00)
8637.00	78.00	87.46 (170.00)	18.29 (60.00)
8642.00	78.50	90.54 (176.00)	67.06 (220.00)

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8647.00	78.50	96.20 (187.00)	115.82 (380.00)
8652.00	78.50	102.89 (200.00)	176.78 (580.00)
8657.00	55.00	97.74 (190.00)	195.07 (640.00)
8717.00	57.71	92.60 (180.00)	198.12 (650.00)
8722.00	40.10	82.31 (160.00)	182.88 (600.00)
8727.00	56.92	82.31 (160.00)	179.83 (590.00)
8787.00	40.10	79.74 (155.00)	182.88 (600.00)
8847.00	57.71	82.31 (160.00)	193.55 (635.00)
8877.00	64.03	81.80 (159.00)	198.12 (650.00)
8878.00	64.03	81.80 (159.00)	198.12 (650.00)
8883.00	69.32	82.31 (160.00)	179.83 (590.00)
8888.00	34.10	82.31 (160.00)	172.21 (565.00)
8893.00	66.31	82.31 (160.00)	134.11 (440.00)
8898.00	61.00	82.31 (160.00)	112.78 (370.00)
8903.00	56.92	82.31 (160.00)	91.44 (300.00)
8908.00	40.10	82.31 (160.00)	60.96 (200.00)
8913.00	67.85	82.31 (160.00)	30.48 (100.00)
8916.00	49.09	82.31 (160.00)	12.19 (40.00)
8918.00	68.59	82.31 (160.00)	.00 (.00)
8921.00	71.67	84.37 (164.00)	9.14 (30.00)
8923.00	78.00	87.46 (170.00)	18.29 (60.00)
8928.00	78.50	90.54 (176.00)	67.06 (220.00)
8933.00	78.50	96.20 (187.00)	115.82 (380.00)
8938.00	78.50	102.89 (200.00)	176.78 (580.00)
8943.00	55.00	97.74 (190.00)	195.07 (640.00)
9003.00	57.71	92.60 (180.00)	198.12 (650.00)
9008.00	40.10	82.31 (160.00)	182.88 (600.00)
9013.00	56.92	82.31 (160.00)	179.83 (590.00)
9073.00	40.10	79.74 (155.00)	182.88 (600.00)
9133.00	57.71	82.31 (160.00)	193.55 (635.00)
9163.00	64.03	81.80 (159.00)	198.12 (650.00)
9164.00	64.03	81.80 (159.00)	182.88 (600.00)
9165.50	70.06	82.31 (160.00)	179.83 (590.00)
9169.00	61.00	83.34 (162.00)	178.31 (585.00)
9173.00	34.10	82.31 (160.00)	172.21 (565.00)
9176.00	64.03	79.22 (154.00)	146.30 (480.00)
9179.00	66.31	82.31 (160.00)	134.11 (440.00)
9184.00	61.42	82.31 (160.00)	112.78 (370.00)
9189.00	57.71	82.31 (160.00)	91.44 (300.00)
9190.00	53.56	82.31 (160.00)	82.30 (270.00)
9191.50	53.56	82.31 (160.00)	79.25 (260.00)
9194.00	40.10	82.31 (160.00)	60.96 (200.00)
9197.00	67.85	83.85 (163.00)	30.48 (100.00)
9202.00	53.56	83.85 (163.00)	12.19 (40.00)
9203.00	53.56	84.37 (164.00)	9.14 (30.00)
9209.00	34.10	77.17 (150.00)	.00 (.00)
9224.00	34.10	15.43 (30.00)	.00 (.00)
9282.00	34.10	.00 (.00)	.00 (.00)
9284.00	34.10	.00 (.00)	.00 (.00)
9286.00	60.08	.00 (.00)	.00 (.00)

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9304.00	34.10	.00 (.00)	.00 (.00)
9306.00	34.10	.00 (.00)	.00 (.00)
9308.00	60.08	.00 (.00)	.00 (.00)
9764.00	34.10	.00 (.00)	.00 (.00)

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the paper.

F404-GE-400 DUTY TEST CYCLE #6

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
30.00	34.10	.00 (.00)	.00 (.00)
60.00	34.10	.00 (.00)	.00 (.00)
90.00	34.10	.00 (.00)	.00 (.00)
120.00	60.08	.00 (.00)	.00 (.00)
125.00	34.10	.00 (.00)	.00 (.00)
155.00	60.08	.00 (.00)	.00 (.00)
160.00	34.10	.00 (.00)	.00 (.00)
200.00	34.10	.00 (.00)	.00 (.00)
210.00	79.00	.00 (.00)	.00 (.00)
220.00	34.10	.00 (.00)	.00 (.00)
1200.00	34.10	.00 (.00)	.00 (.00)
1201.00	130.00	.00 (.00)	.00 (.00)
1212.50	130.00	41.16 (80.00)	12.19 (40.00)
1217.50	130.00	61.73 (120.00)	15.24 (50.00)
1222.50	130.00	79.74 (155.00)	18.29 (60.00)
1227.50	130.00	92.60 (180.00)	30.48 (100.00)
1232.50	130.00	110.61 (215.00)	68.58 (225.00)
1237.50	130.00	123.47 (240.00)	140.21 (460.00)
1242.50	78.50	133.76 (260.00)	268.22 (880.00)
1244.50	69.32	138.90 (270.00)	335.28 (1100.00)
1246.00	47.60	138.90 (270.00)	350.52 (1150.00)
1247.50	35.60	138.90 (270.00)	362.71 (1190.00)
1250.50	58.17	138.90 (270.00)	377.95 (1240.00)
1251.50	58.44	138.90 (270.00)	379.48 (1245.00)
1257.50	62.57	138.90 (270.00)	379.78 (1246.00)
1262.50	62.57	138.90 (270.00)	388.62 (1275.00)
1267.50	65.92	141.47 (275.00)	402.34 (1320.00)
1272.50	68.59	149.19 (290.00)	420.62 (1380.00)
1277.50	63.29	154.33 (300.00)	420.62 (1380.00)
1282.50	63.29	151.76 (295.00)	449.58 (1475.00)
1287.50	71.67	151.76 (295.00)	518.16 (1700.00)
1292.50	78.00	154.33 (300.00)	630.94 (2070.00)
1297.50	75.52	154.33 (300.00)	774.19 (2540.00)
1302.50	75.52	149.19 (290.00)	960.12 (3150.00)
1307.50	75.52	149.19 (290.00)	1104.90 (3625.00)
1311.50	75.93	154.33 (300.00)	1216.15 (3990.00)
1315.50	78.50	164.62 (320.00)	1310.64 (4300.00)
1316.50	78.00	180.06 (350.00)	1341.12 (4400.00)
1317.50	78.00	180.06 (350.00)	1341.12 (4400.00)
1377.50	78.00	180.06 (350.00)	2743.20 (9000.00)
1437.50	78.00	174.91 (340.00)	4572.00 (15000.00)
1517.50	78.00	133.76 (260.00)	5791.20 (19000.00)
1617.50	78.00	92.60 (180.00)	6400.80 (21000.00)
1817.50	78.00	149.19 (290.00)	6705.60 (22000.00)
1818.50	78.00	149.19 (290.00)	6705.60 (22000.00)
1878.50	61.82	164.62 (320.00)	6705.60 (22000.00)
2718.50	61.82	154.33 (300.00)	6705.60 (22000.00)

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2748.50	70.06	149.19 (290.00)	6705.60 (22000.00)
2749.50	70.06	149.19 (290.00)	6705.60 (22000.00)
2754.50	57.90	138.90 (270.00)	6675.12 (21900.00)
2759.50	56.92	128.61 (250.00)	6553.20 (21500.00)
2764.50	46.10	127.07 (247.00)	6355.08 (20850.00)
2824.50	46.10	129.64 (252.00)	6096.00 (20000.00)
2884.50	46.10	136.33 (265.00)	5242.56 (17200.00)
2944.50	46.10	136.33 (265.00)	4297.68 (14100.00)
3004.50	46.10	136.33 (265.00)	3422.90 (11230.00)
3064.50	46.10	136.33 (265.00)	2529.84 (8300.00)
3124.50	46.10	136.33 (265.00)	1652.02 (5420.00)
3184.50	52.07	128.61 (250.00)	1417.32 (4650.00)
3244.50	56.92	128.61 (250.00)	1341.12 (4400.00)
3249.50	57.90	136.33 (265.00)	1341.12 (4400.00)
3489.50	57.90	136.33 (265.00)	1341.12 (4400.00)
3499.50	71.67	159.48 (310.00)	1341.12 (4400.00)
3500.50	78.00	180.06 (350.00)	1341.12 (4400.00)
3560.50	78.00	180.06 (350.00)	2743.20 (9000.00)
3620.50	78.00	174.91 (340.00)	4572.00 (15000.00)
3700.50	78.00	133.76 (260.00)	5791.20 (19000.00)
3800.50	78.00	92.60 (180.00)	6400.80 (21000.00)
4000.50	78.00	149.19 (290.00)	6705.60 (22000.00)
4001.50	78.00	149.19 (290.00)	6705.60 (22000.00)
4061.50	61.82	164.62 (320.00)	6705.60 (22000.00)
4901.50	61.82	154.33 (300.00)	6705.60 (22000.00)
4931.50	70.06	149.19 (290.00)	6705.60 (22000.00)
4932.50	70.06	149.19 (290.00)	7772.40 (25500.00)
4937.50	57.90	138.90 (270.00)	7635.24 (25050.00)
4942.50	56.92	128.61 (250.00)	7467.60 (24500.00)
4947.50	46.10	127.07 (247.00)	7025.64 (23050.00)
5007.50	46.10	129.64 (252.00)	6096.00 (20000.00)
5067.50	46.10	136.33 (265.00)	5181.60 (17000.00)
5127.50	46.10	136.33 (265.00)	4297.68 (14100.00)
5187.50	46.10	136.33 (265.00)	3422.90 (11230.00)
5247.50	46.10	136.33 (265.00)	2529.84 (8300.00)
5307.50	46.10	136.33 (265.00)	1652.02 (5420.00)
5367.50	52.07	128.61 (250.00)	1417.32 (4650.00)
5427.50	56.92	128.61 (250.00)	1341.12 (4400.00)
5432.50	57.90	136.33 (265.00)	1341.12 (4400.00)
5672.50	57.90	136.33 (265.00)	1341.12 (4400.00)
5673.50	58.13	164.62 (320.00)	1371.60 (4500.00)
5733.50	57.71	154.33 (300.00)	1371.60 (4500.00)
5793.50	58.00	149.19 (290.00)	1341.12 (4400.00)
5853.50	57.71	149.19 (290.00)	1280.16 (4200.00)
5913.50	59.18	144.04 (280.00)	1249.68 (4100.00)
5973.50	58.17	133.76 (260.00)	1280.16 (4200.00)
6033.50	58.17	128.61 (250.00)	1249.68 (4100.00)
6093.50	58.17	128.61 (250.00)	1219.20 (4000.00)
6153.50	57.90	128.61 (250.00)	1219.20 (4000.00)
6213.50	57.71	128.61 (250.00)	1188.72 (3900.00)

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6273.50	57.71	133.76 (260.00)	1066.80 (3500.00)
6333.50	46.10	133.76 (260.00)	914.40 (3000.00)
6393.50	43.10	128.61 (250.00)	762.00 (2500.00)
6453.50	57.71	128.61 (250.00)	640.08 (2100.00)
6513.50	46.10	133.76 (260.00)	609.60 (2000.00)
6514.50	46.10	126.04 (245.00)	597.41 (1960.00)
6517.50	46.10	126.04 (245.00)	591.31 (1940.00)
6522.50	34.10	126.04 (245.00)	585.22 (1920.00)
6527.50	34.10	128.61 (250.00)	548.64 (1800.00)
6532.50	34.10	128.61 (250.00)	515.11 (1690.00)
6537.50	34.10	126.04 (245.00)	493.78 (1620.00)
6542.50	34.10	126.04 (245.00)	481.58 (1580.00)
6547.50	34.10	120.89 (235.00)	466.34 (1530.00)
6552.50	34.10	115.75 (225.00)	469.39 (1540.00)
6554.50	56.92	115.75 (225.00)	466.34 (1530.00)
6557.50	31.10	115.75 (225.00)	463.30 (1520.00)
6562.50	31.10	110.61 (215.00)	441.96 (1450.00)
6567.50	34.10	102.89 (200.00)	438.91 (1440.00)
6572.50	34.10	92.60 (180.00)	457.20 (1500.00)
6577.50	34.10	82.31 (160.00)	448.06 (1470.00)
6582.50	64.03	78.20 (152.00)	426.72 (1400.00)
6587.50	64.03	82.31 (160.00)	420.62 (1380.00)
6592.50	59.18	77.17 (150.00)	420.62 (1380.00)
6597.50	67.85	77.17 (150.00)	420.62 (1380.00)
6602.50	60.08	77.17 (150.00)	420.62 (1380.00)
6607.50	67.85	77.17 (150.00)	420.62 (1380.00)
6609.50	68.59	77.17 (150.00)	420.62 (1380.00)
6615.50	34.10	77.17 (150.00)	396.24 (1300.00)
6620.00	67.85	77.17 (150.00)	368.81 (1210.00)
6622.50	61.82	79.74 (155.00)	344.42 (1130.00)
6627.50	67.85	79.74 (155.00)	326.14 (1070.00)
6632.50	46.10	81.28 (158.00)	310.90 (1020.00)
6637.50	60.08	77.17 (150.00)	292.61 (960.00)
6642.50	64.03	78.20 (152.00)	259.08 (850.00)
6644.50	70.06	79.22 (154.00)	252.98 (830.00)
6647.50	59.18	82.31 (160.00)	243.84 (800.00)
6649.00	49.09	82.31 (160.00)	240.79 (790.00)
6652.50	60.08	78.20 (152.00)	234.70 (770.00)
6654.50	67.85	78.20 (152.00)	228.60 (750.00)
6657.50	61.82	80.77 (157.00)	219.46 (720.00)
6659.50	62.93	80.77 (157.00)	213.36 (700.00)
6667.50	64.03	81.80 (159.00)	182.88 (600.00)
6669.00	69.32	82.31 (160.00)	179.83 (590.00)
6672.50	61.82	83.34 (162.00)	178.31 (585.00)
6676.50	34.10	82.31 (160.00)	172.21 (565.00)
6679.50	64.03	79.22 (154.00)	146.30 (480.00)
6682.50	67.09	82.31 (160.00)	134.11 (440.00)
6687.50	61.00	82.31 (160.00)	112.78 (370.00)
6692.50	53.56	82.31 (160.00)	91.44 (300.00)
6694.00	46.10	82.31 (160.00)	82.30 (270.00)

AD-A071 907

NAVAL AIR DEVELOPMENT CENTER WARMINSTER PA AIR VEHICL--ETC F/G 21/5
SIMULATED MISSION ENDURANCE TEST (SMET) FOR AN AIRCRAFT ENGINE --ETC(U)
APR 79 S M COTE, J L BIRKLER

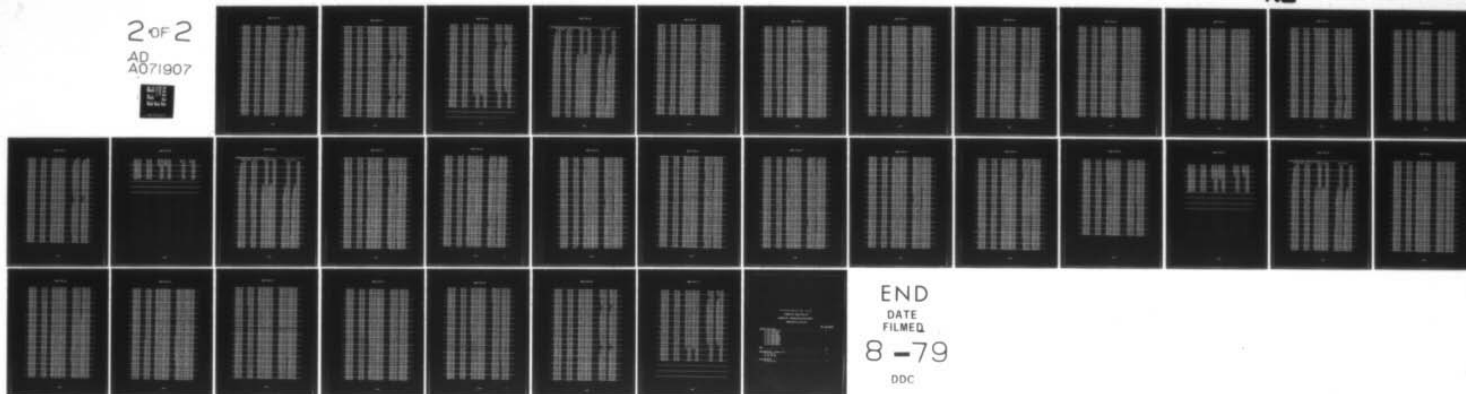
UNCLASSIFIED

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NL

2 OF 2

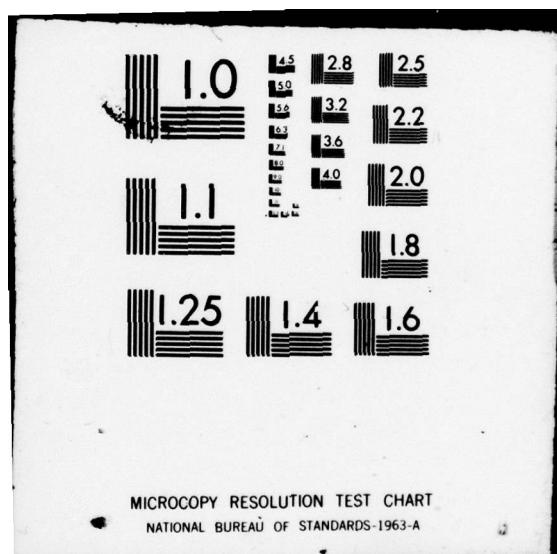
AD
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END
DATE
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8-79

DDC



6695.00	46.10	82.31 (160.00)	79.25 (260.00)
6697.50	34.10	82.31 (160.00)	60.96 (200.00)
6700.50	67.85	83.85 (163.00)	30.48 (100.00)
6705.50	46.10	83.85 (163.00)	12.19 (40.00)
6706.50	68.59	84.37 (164.00)	9.14 (30.00)
6707.50	71.67	86.94 (169.00)	9.14 (30.00)
6712.50	78.00	87.46 (170.00)	18.29 (60.00)
6717.50	78.50	90.54 (176.00)	67.06 (220.00)
6722.50	78.00	96.20 (187.00)	115.82 (380.00)
6727.50	78.50	102.89 (200.00)	176.78 (580.00)
6732.50	78.50	113.18 (220.00)	237.74 (780.00)
6737.50	78.00	123.47 (240.00)	300.23 (985.00)
6740.30	31.10	126.04 (245.00)	326.14 (1070.00)
6742.50	67.85	118.32 (230.00)	310.90 (1020.00)
6745.50	67.47	126.04 (245.00)	371.86 (1220.00)
6747.50	64.03	128.61 (250.00)	381.00 (1250.00)
6752.50	59.18	128.61 (250.00)	434.34 (1425.00)
6753.00	46.10	128.61 (250.00)	438.91 (1440.00)
6757.50	57.71	128.61 (250.00)	457.20 (1500.00)
6762.50	57.71	128.61 (250.00)	466.34 (1530.00)
6767.50	40.10	131.18 (255.00)	466.34 (1530.00)
6772.50	37.10	131.18 (255.00)	463.30 (1520.00)
6777.50	55.00	131.18 (255.00)	454.15 (1490.00)
6782.50	56.92	131.18 (255.00)	460.25 (1510.00)
6787.50	46.10	131.18 (255.00)	451.10 (1480.00)
6792.50	46.10	131.18 (255.00)	451.10 (1480.00)
6797.50	46.10	131.18 (255.00)	457.20 (1500.00)
6802.50	46.10	131.18 (255.00)	448.06 (1470.00)
6807.50	46.10	128.61 (250.00)	445.01 (1460.00)
6812.50	46.10	128.61 (250.00)	451.10 (1480.00)
6817.50	46.10	126.04 (245.00)	464.82 (1525.00)
6822.50	46.10	126.04 (245.00)	460.25 (1510.00)
6827.50	46.10	126.04 (245.00)	460.25 (1510.00)
6832.50	46.10	126.04 (245.00)	460.25 (1510.00)
6842.50	46.10	126.04 (245.00)	475.49 (1560.00)
6849.50	46.10	126.04 (245.00)	487.68 (1600.00)
6857.50	46.10	126.04 (245.00)	469.39 (1540.00)
6867.50	46.10	128.61 (250.00)	441.96 (1450.00)
6877.50	46.10	128.61 (250.00)	448.06 (1470.00)
6887.50	46.10	128.61 (250.00)	448.06 (1470.00)
6897.50	46.10	128.61 (250.00)	448.06 (1470.00)
6907.50	46.10	128.61 (250.00)	448.06 (1470.00)
6917.50	52.07	128.61 (250.00)	441.96 (1450.00)
6922.50	57.71	128.61 (250.00)	451.10 (1480.00)
6927.50	46.10	128.61 (250.00)	445.01 (1460.00)
6932.50	44.60	128.61 (250.00)	445.01 (1460.00)
6942.50	43.10	126.04 (245.00)	445.01 (1460.00)
6952.50	40.10	123.47 (240.00)	451.10 (1480.00)
6962.50	38.60	123.47 (240.00)	451.10 (1480.00)
6972.50	38.60	120.89 (235.00)	451.10 (1480.00)

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6975.50	57.71	120.89 (235.00)	451.10 (1480.00)
6987.50	43.10	120.89 (235.00)	451.10 (1480.00)
6997.00	58.00	120.89 (235.00)	451.10 (1480.00)
6999.50	31.10	120.89 (235.00)	445.01 (1460.00)
7007.50	31.10	113.18 (220.00)	441.96 (1450.00)
7017.50	34.10	95.17 (185.00)	463.30 (1520.00)
7020.50	34.10	90.54 (176.00)	463.30 (1520.00)
7021.50	64.03	81.80 (159.00)	198.12 (650.00)
7026.50	69.32	82.31 (160.00)	179.83 (590.00)
7031.50	34.10	82.31 (160.00)	172.21 (565.00)
7036.50	66.31	82.31 (160.00)	134.11 (440.00)
7041.50	61.00	82.31 (160.00)	112.78 (370.00)
7046.50	56.92	82.31 (160.00)	91.44 (300.00)
7051.50	40.10	82.31 (160.00)	60.96 (200.00)
7056.50	67.85	82.31 (160.00)	30.48 (100.00)
7059.50	49.09	82.31 (160.00)	12.19 (40.00)
7061.50	68.59	82.31 (160.00)	.00 (.00)
7064.50	71.67	84.37 (164.00)	9.14 (30.00)
7066.50	78.00	87.46 (170.00)	18.29 (60.00)
7071.50	78.50	90.54 (176.00)	67.06 (220.00)
7076.50	78.50	96.20 (187.00)	115.82 (380.00)
7081.50	78.50	102.89 (200.00)	176.78 (580.00)
7086.50	55.00	97.74 (190.00)	195.07 (640.00)
7146.50	57.71	92.60 (180.00)	198.12 (650.00)
7151.50	40.10	82.31 (160.00)	182.88 (600.00)
7156.50	56.92	82.31 (160.00)	179.83 (590.00)
7216.50	40.10	79.74 (155.00)	182.88 (600.00)
7276.50	57.71	82.31 (160.00)	193.55 (635.00)
7306.50	64.03	81.80 (159.00)	198.12 (650.00)
7307.50	64.03	81.80 (159.00)	198.12 (650.00)
7312.50	69.32	82.31 (160.00)	179.83 (590.00)
7317.50	34.10	82.31 (160.00)	172.21 (565.00)
7322.50	66.31	82.31 (160.00)	134.11 (440.00)
7327.50	61.00	82.31 (160.00)	112.78 (370.00)
7332.50	56.92	82.31 (160.00)	91.44 (300.00)
7337.50	40.10	82.31 (160.00)	60.96 (200.00)
7342.50	67.85	82.31 (160.00)	30.48 (100.00)
7345.50	49.09	82.31 (160.00)	12.19 (40.00)
7347.50	68.59	82.31 (160.00)	.00 (.00)
7350.50	71.67	84.37 (164.00)	9.14 (30.00)
7352.50	78.00	87.46 (170.00)	18.29 (60.00)
7357.50	78.50	90.54 (176.00)	67.06 (220.00)
7362.50	78.50	96.20 (187.00)	115.82 (380.00)
7367.50	78.50	102.89 (200.00)	176.78 (580.00)
7372.50	55.00	97.74 (190.00)	195.07 (640.00)
7432.50	57.71	92.60 (180.00)	198.12 (650.00)
7437.50	40.10	82.31 (160.00)	182.88 (600.00)
7442.50	56.92	82.31 (160.00)	179.83 (590.00)
7502.50	40.10	79.74 (155.00)	182.88 (600.00)
7562.50	57.71	82.31 (160.00)	193.55 (635.00)

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7592.50	64.03	81.80 (159.00)	198.12 (650.00)
7593.50	64.03	81.80 (159.00)	198.12 (650.00)
7598.50	69.32	82.31 (160.00)	179.83 (590.00)
7603.50	34.10	82.31 (160.00)	172.21 (565.00)
7608.50	66.31	82.31 (160.00)	134.11 (440.00)
7613.50	61.00	82.31 (160.00)	112.78 (370.00)
7618.50	56.92	82.31 (160.00)	91.44 (300.00)
7623.50	40.10	82.31 (160.00)	60.96 (200.00)
7628.50	67.85	82.31 (160.00)	30.48 (100.00)
7631.50	49.09	82.31 (160.00)	12.19 (40.00)
7633.50	68.59	82.31 (160.00)	.00 (.00)
7636.50	71.67	84.37 (164.00)	9.14 (30.00)
7638.50	78.00	87.46 (170.00)	18.29 (60.00)
7643.50	78.50	90.54 (176.00)	67.06 (220.00)
7648.50	78.50	96.20 (187.00)	115.82 (380.00)
7653.50	78.50	102.89 (200.00)	176.78 (580.00)
7658.50	55.00	97.74 (190.00)	195.07 (640.00)
7718.50	57.71	92.60 (180.00)	198.12 (650.00)
7723.50	40.10	82.31 (160.00)	182.88 (600.00)
7728.50	56.92	82.31 (160.00)	179.83 (590.00)
7788.50	40.10	79.74 (155.00)	182.88 (600.00)
7848.50	57.71	82.31 (160.00)	193.55 (635.00)
7878.50	64.03	81.80 (159.00)	198.12 (650.00)
7879.50	64.03	81.80 (159.00)	182.88 (600.00)
7881.00	70.06	82.31 (160.00)	179.83 (590.00)
7884.50	61.00	83.34 (162.00)	178.31 (585.00)
7888.50	34.10	82.31 (160.00)	172.21 (565.00)
7891.50	64.03	79.22 (154.00)	146.30 (480.00)
7894.50	66.31	82.31 (160.00)	134.11 (440.00)
7899.50	61.42	82.31 (160.00)	112.78 (370.00)
7904.50	57.71	82.31 (160.00)	91.44 (300.00)
7905.50	53.56	82.31 (160.00)	82.30 (270.00)
7907.00	53.56	82.31 (160.00)	79.25 (260.00)
7909.50	40.10	82.31 (160.00)	60.96 (200.00)
7912.50	67.85	83.85 (163.00)	30.48 (100.00)
7917.50	53.56	83.85 (163.00)	12.19 (40.00)
7918.50	53.56	84.37 (164.00)	9.14 (30.00)
7924.50	34.10	77.17 (150.00)	.00 (.00)
7939.50	34.10	15.43 (30.00)	.00 (.00)
7997.50	34.10	.00 (.00)	.00 (.00)
7999.50	34.10	.00 (.00)	.00 (.00)
8001.50	60.08	.00 (.00)	.00 (.00)
8019.50	34.10	.00 (.00)	.00 (.00)
8021.50	34.10	.00 (.00)	.00 (.00)
8023.50	60.08	.00 (.00)	.00 (.00)
8479.50	34.10	.00 (.00)	.00 (.00)

F404-GE-400 DUTY TEST CYCLE #7

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
30.00	34.10	.00 (.00)	.00 (.00)
60.00	34.10	.00 (.00)	.00 (.00)
90.00	34.10	.00 (.00)	.00 (.00)
120.00	60.08	.00 (.00)	.00 (.00)
125.00	34.10	.00 (.00)	.00 (.00)
155.00	60.08	.00 (.00)	.00 (.00)
160.00	34.10	.00 (.00)	.00 (.00)
200.00	34.10	.00 (.00)	.00 (.00)
210.00	79.00	.00 (.00)	.00 (.00)
220.00	34.10	.00 (.00)	.00 (.00)
1200.00	34.10	.00 (.00)	.00 (.00)
1201.00	130.00	.00 (.00)	.00 (.00)
1212.50	130.00	41.16 (80.00)	12.19 (40.00)
1217.50	130.00	61.73 (120.00)	15.24 (50.00)
1222.50	130.00	79.74 (155.00)	18.29 (60.00)
1227.50	130.00	92.60 (180.00)	30.48 (100.00)
1232.50	130.00	110.61 (215.00)	68.58 (225.00)
1237.50	130.00	123.47 (240.00)	140.21 (460.00)
1242.50	78.50	133.76 (260.00)	268.22 (880.00)
1244.50	69.32	138.90 (270.00)	335.28 (1100.00)
1246.00	47.60	138.90 (270.00)	350.52 (1150.00)
1247.50	35.60	138.90 (270.00)	362.71 (1190.00)
1250.50	58.17	138.90 (270.00)	377.95 (1240.00)
1251.50	58.44	138.90 (270.00)	379.48 (1245.00)
1257.50	62.57	138.90 (270.00)	379.78 (1246.00)
1262.50	62.57	138.90 (270.00)	388.62 (1275.00)
1267.50	65.92	141.47 (275.00)	402.34 (1320.00)
1272.50	68.59	149.19 (290.00)	420.62 (1380.00)
1277.50	63.29	154.33 (300.00)	420.62 (1380.00)
1282.50	63.29	151.76 (295.00)	449.58 (1475.00)
1287.50	71.67	151.76 (295.00)	518.16 (1700.00)
1292.50	78.00	154.33 (300.00)	630.94 (2070.00)
1297.50	75.52	154.33 (300.00)	774.19 (2540.00)
1302.50	75.52	149.19 (290.00)	960.12 (3150.00)
1307.50	75.52	149.19 (290.00)	1104.90 (3625.00)
1311.50	75.93	149.19 (290.00)	1216.15 (3990.00)
1315.50	78.50	149.19 (290.00)	1310.64 (4300.00)
1316.50	78.00	149.19 (290.00)	1341.12 (4400.00)
1317.50	78.00	180.06 (350.00)	1341.12 (4400.00)
1517.50	78.00	180.06 (350.00)	2743.20 (9000.00)
1817.50	78.00	180.06 (350.00)	4572.00 (15000.00)
1917.50	58.44	154.33 (300.00)	4572.00 (15000.00)
1918.50	58.44	154.33 (300.00)	4572.00 (15000.00)
2518.50	58.44	154.33 (300.00)	4572.00 (15000.00)
3018.50	76.32	214.01 (416.00)	8528.30 (27980.00)
3019.50	76.32	214.06 (416.10)	8528.30 (27980.00)
3027.50	76.32	216.17 (420.20)	8839.20 (29000.00)

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3032.50	75.52	221.88 (431.30)	8967.22 (29420.00)
3037.50	76.32	230.73 (448.50)	9052.56 (29700.00)
3042.50	76.32	239.47 (465.50)	9150.10 (30020.00)
3047.50	76.32	248.27 (482.60)	9241.54 (30320.00)
3052.50	76.32	257.12 (499.80)	9302.50 (30520.00)
3057.50	77.00	266.07 (517.20)	9339.07 (30640.00)
3062.50	78.05	277.90 (540.20)	9406.13 (30860.00)
3067.50	78.00	286.39 (556.70)	9534.14 (31280.00)
3072.50	78.00	291.79 (567.20)	9692.64 (31800.00)
3077.50	78.00	296.27 (575.90)	10046.21 (32960.00)
3082.50	78.00	298.89 (580.60)	10174.22 (33380.00)
3086.50	71.67	293.85 (571.20)	9912.10 (32520.00)
3089.00	71.67	293.23 (570.00)	10058.40 (33000.00)
3090.50	71.67	292.98 (569.50)	10117.84 (33195.00)
3092.00	71.67	293.49 (570.50)	10000.49 (32810.00)
3093.00	71.67	293.13 (569.80)	10082.78 (33080.00)
3099.50	71.67	293.85 (571.20)	9918.19 (32540.00)
3101.50	71.67	293.70 (570.90)	9948.67 (32640.00)
3107.50	71.67	288.50 (560.80)	9753.60 (32000.00)
3112.50	71.67	285.41 (554.80)	9777.98 (32080.00)
3117.50	71.67	285.11 (554.20)	9851.14 (32320.00)
3122.50	71.67	281.81 (547.80)	9918.19 (32540.00)
3127.50	71.25	281.61 (547.40)	9966.96 (32700.00)
3132.50	71.25	287.57 (559.00)	9982.20 (32750.00)
3137.50	71.67	281.61 (547.40)	9976.10 (32730.00)
3142.50	77.00	287.78 (559.40)	9927.34 (32570.00)
3147.50	77.53	287.83 (559.50)	9921.24 (32550.00)
3152.50	77.53	287.88 (559.60)	9906.00 (32500.00)
3157.50	77.53	287.99 (559.80)	9875.52 (32400.00)
3162.50	77.53	288.29 (560.40)	9808.46 (32180.00)
3167.50	78.00	276.77 (538.00)	9686.54 (31780.00)
3172.50	78.25	284.33 (552.70)	9308.59 (30540.00)
3177.50	78.50	280.99 (546.20)	8622.79 (28290.00)
3182.50	79.00	278.42 (541.20)	7693.15 (25240.00)
3187.50	78.75	294.16 (571.80)	6839.71 (22440.00)
3192.00	78.75	311.55 (605.60)	6419.09 (21060.00)
3192.50	78.50	311.86 (606.20)	6339.84 (20800.00)
3193.00	79.00	311.39 (605.30)	6458.71 (21190.00)
3193.50	79.00	305.22 (593.30)	6431.28 (21100.00)
3195.50	79.00	295.86 (575.10)	6412.99 (21040.00)
3202.50	78.50	281.30 (546.80)	6931.15 (22740.00)
3207.50	78.75	279.55 (543.40)	7403.59 (24290.00)
3212.50	78.50	287.27 (558.40)	7805.93 (25610.00)
3217.50	79.00	288.65 (561.10)	8232.65 (27010.00)
3222.50	78.00	280.68 (545.60)	8695.94 (28530.00)
3227.50	119.96	273.38 (531.40)	9012.94 (29570.00)
3232.50	119.96	265.86 (516.80)	9387.84 (30800.00)
3237.50	119.96	258.71 (502.90)	9692.64 (31800.00)
3242.50	119.96	255.01 (495.70)	9875.52 (32400.00)
3247.50	119.96	254.60 (494.90)	9979.15 (32740.00)

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3252.50	119.96	254.39 (494.50)	10046.21 (32960.00)
3257.50	119.96	257.22 (500.00)	10082.78 (33080.00)
3262.50	119.96	269.11 (523.10)	10107.17 (33160.00)
3267.50	119.96	275.02 (534.60)	10119.36 (33200.00)
3272.50	119.96	274.66 (533.90)	10204.70 (33480.00)
3277.50	119.96	273.79 (532.20)	10433.30 (34230.00)
3282.50	119.96	275.74 (536.00)	10671.05 (35010.00)
3287.50	119.96	278.37 (541.10)	10753.34 (35280.00)
3291.50	119.96	272.40 (529.50)	10765.54 (35320.00)
3297.50	119.96	269.83 (524.50)	10674.10 (35020.00)
3298.50	119.96	269.93 (524.70)	10643.62 (34920.00)
3302.00	119.96	270.44 (525.70)	10521.70 (34520.00)
3307.50	119.96	286.44 (556.80)	10253.47 (33640.00)
3312.50	119.96	287.47 (558.80)	10000.49 (32810.00)
3317.50	119.96	295.60 (574.60)	9503.66 (31180.00)
3322.50	119.96	304.19 (591.30)	8906.26 (29220.00)
3327.50	119.96	319.06 (620.20)	8305.80 (27250.00)
3332.50	119.96	340.25 (661.40)	7702.30 (25270.00)
3337.50	119.96	337.01 (655.10)	7059.17 (23160.00)
3342.50	119.96	342.67 (666.10)	6498.34 (21320.00)
3347.50	119.96	331.71 (644.80)	6126.48 (20100.00)
3352.50	119.96	319.47 (621.00)	6031.99 (19790.00)
3357.50	119.96	313.04 (608.50)	6059.42 (19880.00)
3362.50	119.96	303.26 (589.50)	6126.48 (20100.00)
3363.50	119.96	302.65 (588.30)	6284.98 (20620.00)
3367.50	119.96	297.35 (578.00)	6025.90 (19770.00)
3372.50	119.96	290.92 (565.50)	6050.28 (19850.00)
3377.50	119.96	287.73 (559.30)	6065.52 (19900.00)
3382.50	119.96	284.59 (553.20)	6059.42 (19880.00)
3387.50	119.96	284.59 (553.20)	6053.33 (19860.00)
3392.50	119.96	284.64 (553.30)	6041.14 (19820.00)
3397.50	119.96	284.64 (553.30)	6035.04 (19800.00)
3402.50	119.96	284.69 (553.40)	6022.85 (19760.00)
3407.50	119.96	278.31 (541.00)	6041.14 (19820.00)
3410.50	119.96	278.26 (540.90)	6050.28 (19850.00)
3417.50	78.00	278.26 (540.90)	6047.23 (19840.00)
3422.50	78.00	275.07 (534.70)	6059.42 (19880.00)
3427.50	78.00	275.07 (534.70)	6065.52 (19900.00)
3432.50	78.00	271.83 (528.40)	6080.76 (19950.00)
3437.50	78.00	271.83 (528.40)	6086.86 (19970.00)
3442.50	78.00	271.83 (528.40)	6086.86 (19970.00)
3447.50	78.00	271.83 (528.40)	6083.81 (19960.00)
3452.50	78.00	271.94 (528.60)	6050.28 (19850.00)
3457.50	58.44	271.94 (528.60)	6059.42 (19880.00)
3462.50	58.17	271.88 (528.50)	6068.57 (19910.00)
3467.50	58.78	268.75 (522.40)	6065.52 (19900.00)
3472.50	58.78	268.64 (522.20)	6089.90 (19980.00)
3477.50	59.18	268.54 (522.00)	6119.77 (20078.00)
3482.50	59.18	268.59 (522.10)	6108.19 (20040.00)
3487.50	59.18	268.64 (522.20)	6096.00 (20000.00)

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3492.50	59.18	268.64 (522.20)	6096.00 (20000.00)
3497.50	59.18	265.45 (516.00)	6096.00 (20000.00)
3502.50	59.18	268.64 (522.20)	6092.95 (19990.00)
3507.50	58.44	268.64 (522.20)	6089.90 (19980.00)
3512.50	58.44	265.50 (516.10)	6089.90 (19980.00)
3513.50	58.44	265.45 (516.00)	6089.90 (19980.00)
3713.50	58.44	180.06 (350.00)	5943.60 (19500.00)
3813.50	31.10	205.78 (400.00)	5273.04 (17300.00)
3814.50	31.10	205.78 (400.00)	5273.04 (17300.00)
3817.50	31.10	218.64 (425.00)	4767.07 (15640.00)
3822.50	31.10	249.51 (485.00)	3681.98 (12080.00)
3827.50	31.10	257.22 (500.00)	2584.70 (8480.00)
3832.50	31.10	241.79 (470.00)	2154.94 (7070.00)
3837.50	31.10	226.36 (440.00)	1975.10 (6480.00)
3842.50	31.10	213.49 (415.00)	1935.48 (6350.00)
3847.50	31.10	205.78 (400.00)	1901.95 (6240.00)
3852.50	31.10	200.63 (390.00)	1844.04 (6050.00)
3857.50	31.10	195.49 (380.00)	1780.03 (5840.00)
3858.50	31.10	190.34 (370.00)	1764.79 (5790.00)
3861.50	70.84	190.34 (370.00)	1758.70 (5770.00)
3862.50	77.53	187.77 (365.00)	1761.74 (5780.00)
3864.50	62.20	190.34 (370.00)	1767.84 (5800.00)
3865.50	69.68	190.34 (370.00)	1780.03 (5840.00)
3872.50	64.03	200.63 (390.00)	1758.70 (5770.00)
3877.50	61.00	205.78 (400.00)	1673.35 (5490.00)
3882.50	58.78	205.78 (400.00)	1612.39 (5290.00)
3887.50	58.44	205.78 (400.00)	1584.96 (5200.00)
3892.50	59.18	210.92 (410.00)	1551.43 (5090.00)
3897.50	59.18	216.07 (420.00)	1493.52 (4900.00)
3902.50	59.18	216.07 (420.00)	1475.23 (4840.00)
3907.50	59.18	218.64 (425.00)	1478.28 (4850.00)
3912.50	59.18	218.64 (425.00)	1463.04 (4800.00)
3917.50	59.18	218.64 (425.00)	1487.42 (4880.00)
3922.50	59.18	218.64 (425.00)	1493.52 (4900.00)
3927.50	59.18	218.64 (425.00)	1499.62 (4920.00)
3932.50	59.18	218.64 (425.00)	1487.42 (4880.00)
3937.50	59.18	218.64 (425.00)	1493.52 (4900.00)
3942.50	59.18	216.07 (420.00)	1496.57 (4910.00)
3947.50	59.18	216.07 (420.00)	1524.00 (5000.00)
3952.50	59.18	216.07 (420.00)	1539.24 (5050.00)
3957.50	60.08	213.49 (415.00)	1548.38 (5080.00)
3962.50	59.62	213.49 (415.00)	1530.10 (5020.00)
3967.50	60.08	213.49 (415.00)	1499.62 (4920.00)
3972.50	59.18	216.07 (420.00)	1478.28 (4850.00)
3977.50	59.62	216.07 (420.00)	1469.14 (4820.00)
3982.50	70.84	216.07 (420.00)	1505.71 (4940.00)
3987.50	78.50	223.78 (435.00)	1499.62 (4920.00)
3992.50	78.75	216.07 (420.00)	1426.46 (4680.00)
3997.50	79.00	226.36 (440.00)	1353.31 (4440.00)
4000.00	78.50	231.50 (450.00)	1325.88 (4350.00)

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4002.50	31.10	231.50(450.00)	1304.54(4280.00)
4007.50	31.10	218.64(425.00)	1295.40(4250.00)
4012.80	31.10	205.78(400.00)	1301.50(4270.00)
4017.50	31.10	192.92(375.00)	1450.85(4760.00)
4022.50	31.10	180.06(350.00)	1554.48(5100.00)
4027.50	31.10	174.91(340.00)	1542.29(5060.00)
4032.50	31.10	167.19(325.00)	1524.00(5000.00)
4037.50	31.10	162.05(315.00)	1505.71(4940.00)
4042.50	31.10	156.91(305.00)	1493.52(4900.00)
4047.50	31.10	154.33(300.00)	1478.28(4850.00)
4052.50	34.10	146.62(285.00)	1463.04(4800.00)
4055.50	46.10	144.04(280.00)	1453.90(4770.00)
4059.50	34.10	141.47(275.00)	1444.75(4740.00)
4063.00	70.84	141.47(275.00)	1444.75(4740.00)
4067.50	78.50	154.33(300.00)	1423.42(4670.00)
4072.50	78.50	174.91(340.00)	1377.70(4520.00)
4077.50	79.00	205.78(400.00)	1386.84(4550.00)
4082.50	79.00	190.34(370.00)	1331.98(4370.00)
4087.50	78.50	195.49(380.00)	1200.91(3940.00)
4092.50	78.80	205.78(400.00)	1386.84(4550.00)
4094.50	79.00	205.78(400.00)	1630.68(5350.00)
4095.50	78.50	205.78(400.00)	1630.68(5350.00)
4215.50	76.32	164.62(320.00)	2590.80(8500.00)
4335.50	76.32	154.33(300.00)	3810.00(12500.00)
4455.50	76.32	149.19(290.00)	6248.40(20500.00)
4695.50	76.32	138.90(270.00)	7467.60(24500.00)
4815.50	76.32	133.76(260.00)	8382.00(27500.00)
4995.50	76.32	214.01(416.00)	8528.30(27980.00)
4996.50	76.32	214.06(416.10)	8528.30(27980.00)
5004.50	76.32	216.17(420.20)	8839.20(29000.00)
5009.50	75.52	221.88(431.30)	8967.22(29420.00)
5014.50	76.32	230.73(448.50)	9052.56(29700.00)
5019.50	76.32	239.47(465.50)	9150.10(30020.00)
5024.50	76.32	248.27(482.60)	9241.54(30320.00)
5029.50	76.32	257.12(499.80)	9302.50(30520.00)
5034.50	77.00	266.07(517.20)	9339.07(30640.00)
5039.50	78.05	277.90(540.20)	9406.13(30860.00)
5044.50	78.00	286.39(556.70)	9534.14(31280.00)
5049.50	78.00	291.79(567.20)	9692.64(31800.00)
5054.50	78.00	296.27(575.90)	10046.21(32960.00)
5059.50	78.00	298.69(580.60)	10174.22(33380.00)
5063.50	71.67	293.85(571.20)	9912.10(32520.00)
5066.00	71.67	293.23(570.00)	10058.40(33000.00)
5067.50	71.67	292.98(569.50)	10117.84(33195.00)
5069.00	71.67	293.49(570.50)	10000.49(32810.00)
5070.00	71.67	293.13(569.80)	10082.78(33080.00)
5076.50	71.67	293.85(571.20)	9918.19(32540.00)
5078.50	71.67	293.70(570.90)	9948.67(32640.00)
5084.50	71.67	288.50(560.80)	9753.60(32000.00)
5089.50	71.67	285.41(554.80)	9777.98(32080.00)

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5094.50	71.67	285.11 (554.20)	9851.14 (32320.00)
5099.50	71.67	281.81 (547.80)	9918.19 (32540.00)
5104.50	71.25	281.61 (547.40)	9966.96 (32700.00)
5109.50	71.25	287.57 (559.00)	9982.20 (32750.00)
5114.50	71.67	281.61 (547.40)	9976.10 (32730.00)
5119.50	77.00	287.78 (559.40)	9927.34 (32570.00)
5124.50	77.53	287.83 (559.50)	9921.24 (32550.00)
5129.50	77.53	287.88 (559.60)	9906.00 (32500.00)
5134.50	77.53	287.99 (559.80)	9875.52 (32400.00)
5139.50	77.53	288.29 (560.40)	9808.46 (32180.00)
5144.50	78.00	276.77 (538.00)	9686.54 (31780.00)
5149.50	78.25	284.33 (552.70)	9308.59 (30540.00)
5154.50	78.50	280.99 (546.20)	8622.79 (28290.00)
5159.50	79.00	278.42 (541.20)	7693.15 (25240.00)
5164.50	78.75	294.16 (571.80)	6839.71 (22440.00)
5169.00	78.75	311.55 (605.60)	6419.09 (21060.00)
5169.50	78.50	311.86 (606.20)	6339.84 (20800.00)
5170.00	79.00	311.39 (605.30)	6458.71 (21190.00)
5170.50	79.00	305.22 (593.30)	6431.28 (21100.00)
5172.50	79.00	295.86 (575.10)	6412.99 (21040.00)
5179.50	78.50	281.30 (546.80)	6931.15 (22740.00)
5184.50	78.75	279.55 (543.40)	7403.59 (24290.00)
5189.50	78.50	287.27 (558.40)	7805.93 (25610.00)
5194.50	79.00	288.65 (561.10)	8232.65 (27010.00)
5199.50	78.00	280.68 (545.60)	8695.94 (28530.00)
5204.50	119.96	273.38 (531.40)	9012.94 (29570.00)
5209.50	119.96	265.86 (516.80)	9387.84 (30800.00)
5214.50	119.96	258.71 (502.90)	9692.64 (31800.00)
5219.50	119.96	255.01 (495.70)	9875.52 (32400.00)
5224.50	119.96	254.60 (494.90)	9979.15 (32740.00)
5229.50	119.96	254.39 (494.50)	10046.21 (32960.00)
5234.50	119.96	257.22 (500.00)	10082.78 (33080.00)
5239.50	119.96	269.11 (523.10)	10107.17 (33160.00)
5244.50	119.96	275.02 (534.60)	10119.36 (33200.00)
5249.50	119.96	274.66 (533.90)	10204.70 (33480.00)
5254.50	119.96	273.79 (532.20)	10433.30 (34230.00)
5259.50	119.96	275.74 (536.00)	10671.05 (35010.00)
5264.50	119.96	278.37 (541.10)	10753.34 (35280.00)
5268.50	119.96	272.40 (529.50)	10765.54 (35320.00)
5274.50	119.96	269.83 (524.50)	10674.10 (35020.00)
5275.50	119.96	269.93 (524.70)	10643.62 (34920.00)
5279.00	119.96	270.44 (525.70)	10521.70 (34520.00)
5284.50	119.96	286.44 (556.80)	10253.47 (33640.00)
5289.50	119.96	287.47 (558.80)	10000.49 (32810.00)
5294.50	119.96	295.60 (574.60)	9503.66 (31180.00)
5299.50	119.96	304.19 (591.30)	8906.26 (29220.00)
5304.50	119.96	319.06 (620.20)	8305.80 (27250.00)
5309.50	119.96	340.25 (661.40)	7702.30 (25270.00)
5314.50	119.96	337.01 (655.10)	7059.17 (23160.00)
5319.50	119.96	342.67 (666.10)	6498.34 (21320.00)

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5324.50	119.96	331.71 (644.80)	6126.48 (20100.00)
5329.50	119.96	319.47 (621.00)	6031.99 (19790.00)
5334.50	119.96	313.04 (608.50)	6059.42 (19880.00)
5339.50	119.96	303.26 (589.50)	6126.48 (20100.00)
5340.50	119.96	302.65 (588.30)	6284.98 (20620.00)
5344.50	119.96	297.35 (578.00)	6025.90 (19770.00)
5349.50	119.96	290.92 (565.50)	6050.28 (19850.00)
5354.50	119.96	287.73 (559.30)	6065.52 (19900.00)
5359.50	119.96	284.59 (553.20)	6059.42 (19880.00)
5364.50	119.96	284.59 (553.20)	6053.33 (19860.00)
5369.50	119.96	284.64 (553.30)	6041.14 (19820.00)
5374.50	119.96	284.64 (553.30)	6035.04 (19800.00)
5379.50	119.96	284.69 (553.40)	6022.85 (19760.00)
5384.50	119.96	278.31 (541.00)	6041.14 (19820.00)
5387.50	119.96	278.26 (540.90)	6050.28 (19850.00)
5394.50	78.00	278.26 (540.90)	6047.23 (19840.00)
5399.50	78.00	275.07 (534.70)	6059.42 (19880.00)
5404.50	78.00	275.07 (534.70)	6065.52 (19900.00)
5409.50	78.00	271.83 (528.40)	6080.76 (19950.00)
5414.50	78.00	271.83 (528.40)	6086.86 (19970.00)
5419.50	78.00	271.83 (528.40)	6086.86 (19970.00)
5424.50	78.00	271.83 (528.40)	6083.81 (19960.00)
5429.50	78.00	271.94 (528.60)	6050.28 (19850.00)
5434.50	58.44	271.94 (528.60)	6059.42 (19880.00)
5439.50	58.17	271.88 (528.50)	6068.57 (19910.00)
5444.50	58.78	268.75 (522.40)	6065.52 (19900.00)
5449.50	58.78	268.64 (522.20)	6089.90 (19980.00)
5454.50	59.18	268.54 (522.00)	6119.77 (20078.00)
5459.50	59.18	268.59 (522.10)	6108.19 (20040.00)
5464.50	59.18	268.64 (522.20)	6096.00 (20000.00)
5469.50	59.18	268.64 (522.20)	6096.00 (20000.00)
5474.50	59.18	265.45 (516.00)	6096.00 (20000.00)
5479.50	59.18	268.64 (522.20)	6092.95 (19990.00)
5484.50	58.44	268.64 (522.20)	6089.90 (19980.00)
5489.50	58.44	265.50 (516.10)	6089.90 (19980.00)
5490.50	58.44	265.45 (516.00)	6089.90 (19980.00)
5550.50	58.00	154.33 (300.00)	5791.20 (19000.00)
6090.50	58.00	154.33 (300.00)	609.60 (2000.00)
6150.50	46.10	126.04 (245.00)	597.41 (1960.00)
6151.50	46.10	126.04 (245.00)	597.41 (1960.00)
6154.50	46.10	126.04 (245.00)	591.31 (1940.00)
6159.50	34.10	126.04 (245.00)	585.22 (1920.00)
6164.50	34.10	128.61 (250.00)	548.64 (1800.00)
6169.50	34.10	128.61 (250.00)	515.11 (1690.00)
6174.50	34.10	126.04 (245.00)	493.78 (1620.00)
6179.50	34.10	126.04 (245.00)	481.58 (1580.00)
6184.50	34.10	120.89 (235.00)	466.34 (1530.00)
6189.50	34.10	115.75 (225.00)	469.39 (1540.00)
6191.50	56.92	115.75 (225.00)	466.34 (1530.00)
6194.50	31.10	115.75 (225.00)	463.30 (1520.00)

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6199.50	31.10	110.61(215.00)	441.96(1450.00)
6204.50	34.10	102.89(200.00)	438.91(1440.00)
6209.50	34.10	92.60(180.00)	457.20(1500.00)
6214.50	34.10	82.31(160.00)	448.06(1470.00)
6219.50	64.03	78.20(152.00)	426.72(1400.00)
6224.50	64.03	82.31(160.00)	420.62(1380.00)
6229.50	59.18	77.17(150.00)	420.62(1380.00)
6234.50	67.85	77.17(150.00)	420.62(1380.00)
6239.50	60.08	77.17(150.00)	420.62(1380.00)
6244.50	67.85	77.17(150.00)	420.62(1380.00)
6246.50	68.59	77.17(150.00)	420.62(1380.00)
6252.50	34.10	77.17(150.00)	396.24(1300.00)
6257.00	67.85	77.17(150.00)	368.81(1210.00)
6259.50	61.82	79.74(155.00)	344.42(1130.00)
6264.50	67.85	79.74(155.00)	326.14(1070.00)
6269.50	46.10	81.28(158.00)	310.90(1020.00)
6274.50	60.08	77.17(150.00)	292.61(960.00)
6279.50	64.03	78.20(152.00)	259.08(850.00)
6281.50	70.06	79.22(154.00)	252.98(830.00)
6284.50	59.18	82.31(160.00)	243.84(800.00)
6286.00	49.09	82.31(160.00)	240.79(790.00)
6289.50	60.08	78.20(152.00)	234.70(770.00)
6291.50	67.85	78.20(152.00)	228.60(750.00)
6294.50	61.82	80.77(157.00)	219.46(720.00)
6296.50	62.93	80.77(157.00)	213.36(700.00)
6304.50	64.03	81.80(159.00)	182.88(600.00)
6306.00	69.32	82.31(160.00)	179.83(590.00)
6309.50	61.82	83.34(162.00)	178.31(585.00)
6313.50	34.10	82.31(160.00)	172.21(565.00)
6316.50	64.03	79.22(154.00)	146.30(480.00)
6319.50	67.09	82.31(160.00)	134.11(440.00)
6324.50	61.00	82.31(160.00)	112.78(370.00)
6329.50	53.56	82.31(160.00)	91.44(300.00)
6331.00	46.10	82.31(160.00)	82.30(270.00)
6332.00	46.10	82.31(160.00)	79.25(260.00)
6334.50	34.10	82.31(160.00)	60.96(200.00)
6337.50	67.85	83.85(163.00)	30.48(100.00)
6342.50	46.10	83.85(163.00)	12.19(40.00)
6343.50	68.59	84.37(164.00)	9.14(30.00)
6344.50	71.67	86.94(169.00)	9.14(30.00)
6349.50	78.00	87.46(170.00)	18.29(60.00)
6354.50	78.50	90.54(176.00)	67.06(220.00)
6359.50	78.00	96.20(187.00)	115.82(380.00)
6364.50	78.50	102.89(200.00)	176.78(580.00)
6369.50	78.50	113.18(220.00)	237.74(780.00)
6374.50	78.00	123.47(240.00)	300.23(985.00)
6377.30	31.10	126.04(245.00)	326.14(1070.00)
6379.50	67.85	118.32(230.00)	310.90(1020.00)
6382.50	67.47	126.04(245.00)	371.86(1220.00)
6384.50	64.03	128.61(250.00)	381.00(1250.00)

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6389.50	59.18	128.61 (250.00)	434.34 (1425.00)
6390.00	46.10	128.61 (250.00)	438.91 (1440.00)
6394.50	57.71	128.61 (250.00)	457.20 (1500.00)
6399.50	57.71	128.61 (250.00)	466.34 (1530.00)
6404.50	40.10	131.18 (255.00)	466.34 (1530.00)
6409.50	37.10	131.18 (255.00)	463.30 (1520.00)
6414.50	55.00	131.18 (255.00)	454.15 (1490.00)
6419.50	56.92	131.18 (255.00)	460.25 (1510.00)
6424.50	46.10	131.18 (255.00)	451.10 (1480.00)
6429.50	46.10	131.18 (255.00)	451.10 (1480.00)
6434.50	46.10	131.18 (255.00)	457.20 (1500.00)
6439.50	46.10	131.18 (255.00)	448.06 (1470.00)
6444.50	46.10	128.61 (250.00)	445.01 (1460.00)
6449.50	46.10	128.61 (250.00)	451.10 (1480.00)
6454.50	46.10	126.04 (245.00)	464.82 (1525.00)
6459.50	46.10	126.04 (245.00)	460.25 (1510.00)
6464.50	46.10	126.04 (245.00)	460.25 (1510.00)
6469.50	46.10	126.04 (245.00)	460.25 (1510.00)
6479.50	46.10	126.04 (245.00)	475.49 (1560.00)
6486.50	46.10	126.04 (245.00)	487.68 (1600.00)
6494.50	46.10	126.04 (245.00)	469.39 (1540.00)
6504.50	46.10	128.61 (250.00)	441.96 (1450.00)
6514.50	46.10	128.61 (250.00)	448.06 (1470.00)
6524.50	46.10	128.61 (250.00)	448.06 (1470.00)
6534.50	46.10	128.61 (250.00)	448.06 (1470.00)
6544.50	46.10	128.61 (250.00)	448.06 (1470.00)
6554.50	52.07	128.61 (250.00)	441.96 (1450.00)
6559.50	57.71	128.61 (250.00)	451.10 (1480.00)
6564.50	46.10	128.61 (250.00)	445.01 (1460.00)
6569.50	44.60	128.61 (250.00)	445.01 (1460.00)
6579.50	43.10	126.04 (245.00)	445.01 (1460.00)
6589.50	40.10	123.47 (240.00)	451.10 (1480.00)
6599.50	38.60	123.47 (240.00)	451.10 (1480.00)
6609.50	38.60	120.89 (235.00)	451.10 (1480.00)
6612.50	57.71	120.89 (235.00)	451.10 (1480.00)
6624.50	43.10	120.89 (235.00)	451.10 (1480.00)
6634.00	58.00	120.89 (235.00)	451.10 (1480.00)
6636.50	31.10	120.89 (235.00)	445.01 (1460.00)
6644.50	31.10	113.18 (220.00)	441.96 (1450.00)
6654.50	34.10	95.17 (185.00)	463.30 (1520.00)
6657.50	34.10	90.54 (176.00)	463.30 (1520.00)
6658.50	64.03	81.80 (159.00)	198.12 (650.00)
6663.50	69.32	82.31 (160.00)	179.83 (590.00)
6668.50	34.10	82.31 (160.00)	172.21 (565.00)
6673.50	66.31	82.31 (160.00)	134.11 (440.00)
6678.50	61.00	82.31 (160.00)	112.78 (370.00)
6683.50	56.92	82.31 (160.00)	91.44 (300.00)
6688.50	40.10	82.31 (160.00)	60.96 (200.00)
6693.50	67.85	82.31 (160.00)	30.48 (100.00)
6696.50	49.09	82.31 (160.00)	12.19 (40.00)

6698.50	68.59	82.31 (160.00)	.00 (	.00)
6701.50	71.67	84.37 (164.00)	9.14 (	30.00)
6703.50	78.00	87.46 (170.00)	18.29 (	60.00)
6708.50	78.50	90.54 (176.00)	67.06 (	220.00)
6713.50	78.50	96.20 (187.00)	115.82 (	380.00)
6718.50	78.50	102.89 (200.00)	176.78 (	580.00)
6723.50	55.00	97.74 (190.00)	195.07 (	640.00)
6783.50	57.71	92.60 (180.00)	198.12 (	650.00)
6788.50	40.10	82.31 (160.00)	182.88 (	600.00)
6793.50	56.92	82.31 (160.00)	179.83 (	590.00)
6853.50	40.10	79.74 (155.00)	182.88 (	600.00)
6913.50	57.71	82.31 (160.00)	193.55 (	635.00)
6943.50	64.03	81.80 (159.00)	198.12 (	650.00)
6944.50	64.03	81.80 (159.00)	198.12 (	650.00)
6949.50	69.32	82.31 (160.00)	179.83 (	590.00)
6954.50	34.10	82.31 (160.00)	172.21 (	565.00)
6959.50	66.31	82.31 (160.00)	134.11 (	440.00)
6964.50	61.00	82.31 (160.00)	112.78 (	370.00)
6969.50	56.92	82.31 (160.00)	91.44 (	300.00)
6974.50	40.10	82.31 (160.00)	60.96 (	200.00)
6979.50	67.85	82.31 (160.00)	30.48 (	100.00)
6982.50	49.09	82.31 (160.00)	12.19 (	40.00)
6984.50	68.59	82.31 (160.00)	.00 (	.00)
6987.50	71.67	84.37 (164.00)	9.14 (	30.00)
6989.50	78.00	87.46 (170.00)	18.29 (	60.00)
6994.50	78.50	90.54 (176.00)	67.06 (	220.00)
6999.50	78.50	96.20 (187.00)	115.82 (	380.00)
7004.50	78.50	102.89 (200.00)	176.78 (	580.00)
7009.50	55.00	97.74 (190.00)	195.07 (	640.00)
7069.50	57.71	92.60 (180.00)	198.12 (	650.00)
7074.50	40.10	82.31 (160.00)	182.88 (	600.00)
7079.50	56.92	82.31 (160.00)	179.83 (	590.00)
7139.50	40.10	79.74 (155.00)	182.88 (	600.00)
7194.50	57.71	82.31 (160.00)	193.55 (	635.00)
7229.50	64.03	81.80 (159.00)	198.12 (	650.00)
7230.50	64.03	81.80 (159.00)	182.88 (	600.00)
7232.00	70.06	82.31 (160.00)	179.83 (	590.00)
7235.50	61.00	83.34 (162.00)	178.31 (	585.00)
7239.50	34.10	82.31 (160.00)	172.21 (	565.00)
7242.50	64.03	79.22 (154.00)	146.30 (	480.00)
7245.50	66.31	82.31 (160.00)	134.11 (	440.00)
7250.50	61.42	82.31 (160.00)	112.78 (	370.00)
7255.50	57.71	82.31 (160.00)	91.44 (	300.00)
7256.50	53.56	82.31 (160.00)	82.30 (	270.00)
7258.00	53.56	82.31 (160.00)	79.25 (260.00)
7260.50	40.10	82.31 (160.00)	60.96 (200.00)
7263.50	67.85	83.85 (163.00)	30.48 (100.00)

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7268.50	53.56	83.85 (163.00)	12.19 (40.00)
7269.50	53.56	84.37 (164.00)	9.14 (30.00)
7275.50	34.10	77.17 (150.00)	.00 (.00)
7290.50	34.10	15.43 (30.00)	.00 (	.00)
7348.50	34.10	.00 (.00)	.00 (	.00)
7350.50	34.10	.00 (.00)	.00 (	.00)
7352.50	60.08	.00 (.00)	.00 (	.00)
7370.50	34.10	.00 (.00)	.00 (	.00)
7372.50	60.08	.00 (.00)	.00 (	.00)
7374.50	34.10	.00 (.00)	.00 (	.00)
7830.50	34.10	.00 (.00)	.00 (	.00)

F404-GE-400 DUTY TEST CYCLE #8

TIME (sec)	PLA (°)	IAS m/s (kts)		ALT m (ft)	
.00	34.10	.00	(.00)	.00	(.00)
30.00	34.10	.00	(.00)	.00	(.00)
60.00	34.10	.00	(.00)	.00	(.00)
90.00	34.10	.00	(.00)	.00	(.00)
120.00	60.08	.00	(.00)	.00	(.00)
125.00	34.10	.00	(.00)	.00	(.00)
155.00	60.08	.00	(.00)	.00	(.00)
160.00	34.10	.00	(.00)	.00	(.00)
200.00	34.10	.00	(.00)	.00	(.00)
210.00	79.00	.00	(.00)	.00	(.00)
220.00	34.10	.00	(.00)	.00	(.00)
1200.00	34.10	.00	(.00)	.00	(.00)
1201.00	79.00	.00	(.00)	.00	(.00)
1212.50	130.00	41.16	(80.00)	12.19	(40.00)
1217.50	130.00	61.73	(120.00)	15.24	(50.00)
1222.50	130.00	79.74	(155.00)	18.29	(60.00)
1227.50	130.00	92.60	(180.00)	30.48	(100.00)
1232.50	130.00	110.61	(215.00)	68.58	(225.00)
1237.50	130.00	123.47	(240.00)	140.21	(460.00)
1242.50	78.50	133.76	(260.00)	268.22	(880.00)
1244.50	69.32	138.90	(270.00)	335.28	(1100.00)
1246.00	47.60	138.90	(270.00)	350.52	(1150.00)
1247.50	35.60	138.90	(270.00)	362.71	(1190.00)
1250.50	58.17	138.90	(270.00)	377.95	(1240.00)
1251.50	58.44	138.90	(270.00)	379.48	(1245.00)
1257.50	62.57	138.90	(270.00)	379.78	(1246.00)
1262.50	62.57	138.90	(270.00)	388.62	(1275.00)
1267.50	65.92	141.47	(275.00)	402.34	(1320.00)
1272.50	68.59	149.19	(290.00)	420.62	(1380.00)
1277.50	63.29	154.33	(300.00)	420.62	(1380.00)
1282.50	63.29	151.76	(295.00)	449.58	(1475.00)
1287.50	71.67	151.76	(295.00)	518.16	(1700.00)
1292.50	78.00	154.33	(300.00)	630.94	(2070.00)
1297.50	75.52	154.33	(300.00)	774.19	(2540.00)
1302.50	75.52	149.19	(290.00)	960.12	(3150.00)
1307.50	75.52	149.19	(290.00)	1104.90	(3625.00)
1311.50	75.93	149.19	(290.00)	1216.15	(3990.00)
1315.50	78.50	149.19	(290.00)	1310.64	(4300.00)
1316.50	78.00	149.19	(290.00)	1341.12	(4400.00)
1317.50	78.00	180.06	(350.00)	1341.12	(4400.00)
1517.50	78.00	180.06	(350.00)	2743.20	(9000.00)
1817.50	78.00	180.06	(350.00)	4572.00	(15000.00)
1917.50	58.44	154.33	(300.00)	4572.00	(15000.00)
1918.50	58.44	154.33	(300.00)	4572.00	(15000.00)
2518.50	58.44	164.62	(320.00)	4373.88	(14350.00)
2818.50	77.53	208.35	(405.00)	3633.22	(11920.00)
2819.50	69.68	211.95	(412.00)	3633.22	(11920.00)
2826.50	78.00	221.62	(430.80)	3663.70	(12020.00)

2831.50	57.90	224.97(437.30)	3645.41(11960.00)
2836.50	52.07	208.66(405.60)	3648.46(11970.00)
2841.50	63.29	208.71(405.70)	3627.12(11900.00)
2846.50	61.00	208.76(405.80)	3608.83(11840.00)
2851.50	61.00	208.66(405.60)	3633.22(11920.00)
2855.50	67.85	208.56(405.40)	3678.94(12070.00)
2861.50	78.00	221.16(429.90)	3837.43(12590.00)
2866.50	78.00	182.58(354.90)	3639.31(11940.00)
2871.50	59.18	216.43(420.70)	3166.87(10390.00)
2874.50	31.10	230.73(448.50)	2737.10(8980.00)
2880.00	31.10	252.33(490.50)	2124.46(6970.00)
2881.50	31.10	267.67(520.30)	1478.28(4850.00)
2886.50	31.10	269.62(524.10)	853.44(2800.00)
2889.50	68.59	256.40(498.40)	762.00(2500.00)
2892.50	78.00	242.71(471.80)	835.15(2740.00)
2896.50	78.00	235.10(457.00)	1149.10(3770.00)
2901.50	78.00	220.03(427.70)	1792.22(5880.00)
2906.50	77.53	208.76(405.80)	2292.10(7520.00)
2911.50	78.00	194.36(377.80)	2785.87(9140.00)
2916.50	78.00	183.76(357.20)	3118.10(10230.00)
2921.50	78.00	176.76(343.60)	3316.22(10880.00)
2925.50	78.00	176.71(343.50)	3331.46(10930.00)
2931.50	78.00	170.38(331.20)	3243.07(10640.00)
2936.50	78.00	163.90(318.60)	3191.26(10470.00)
2940.50	78.00	170.49(331.40)	3169.92(10400.00)
2946.50	78.00	176.92(343.90)	3243.07(10640.00)
2951.50	78.00	183.25(356.20)	3343.66(10970.00)
2956.50	78.00	183.04(355.80)	3429.00(11250.00)
2961.50	78.00	189.37(368.10)	3520.44(11550.00)
2966.50	63.29	195.75(380.50)	3587.50(11770.00)
2971.50	61.00	195.64(380.30)	3621.02(11880.00)
2976.50	61.00	195.64(380.30)	3627.12(11900.00)
2979.50	67.85	195.59(380.20)	3645.41(11960.00)
2980.50	69.32	195.59(380.20)	3657.60(12000.00)
2986.50	68.59	201.92(392.50)	3718.56(12200.00)
2991.50	67.09	201.92(392.50)	3727.70(12230.00)
2996.50	66.31	202.02(392.70)	3688.08(12100.00)
3001.50	71.67	198.78(386.40)	3675.89(12060.00)
3006.50	64.03	205.31(399.10)	3678.94(12070.00)
3011.50	61.00	208.61(405.50)	3663.70(12020.00)
3014.00	70.84	208.61(405.50)	3657.60(12000.00)
3018.50	78.00	202.02(392.70)	3694.18(12120.00)
3019.00	78.00	195.49(380.00)	3694.18(12120.00)
3024.50	78.00	196.26(381.50)	3377.18(11080.00)
3028.50	64.03	223.73(434.90)	2895.60(9500.00)
3029.50	31.10	230.93(448.90)	2663.95(8740.00)
3033.50	31.10	249.35(484.70)	2023.87(6640.00)
3036.50	31.10	264.06(513.30)	1551.43(5090.00)
3040.50	31.10	268.95(522.80)	1066.80(3500.00)
3042.50	31.10	259.33(504.10)	908.30(2980.00)

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3044.00	59.18	256.04 (497.70)	890.02 (2920.00)
3046.50	77.53	242.35 (471.10)	950.98 (3120.00)
3051.50	78.00	231.14 (449.30)	1377.70 (4520.00)
3056.50	78.00	219.62 (426.90)	1947.67 (6390.00)
3061.50	78.00	208.50 (405.30)	2401.82 (7880.00)
3066.50	78.00	204.39 (397.30)	2718.82 (8920.00)
3071.50	78.00	203.87 (396.30)	2938.27 (9640.00)
3076.50	78.00	210.15 (408.50)	3054.10 (10020.00)
3086.50	78.00	213.08 (414.20)	3182.11 (10440.00)
3089.50	78.00	216.38 (420.60)	3188.21 (10460.00)
3091.50	78.00	213.08 (414.20)	3185.16 (10450.00)
3096.50	78.00	213.03 (414.10)	3212.59 (10540.00)
3101.50	78.00	196.57 (382.10)	3249.17 (10660.00)
3106.50	78.00	202.95 (394.50)	3322.32 (10900.00)
3111.50	61.00	209.17 (406.60)	3429.00 (11250.00)
3116.50	60.08	208.92 (406.10)	3535.68 (11600.00)
3121.50	57.71	205.47 (399.40)	3602.74 (11820.00)
3126.50	52.07	202.23 (393.10)	3608.83 (11840.00)
3131.50	49.09	203.87 (396.30)	3596.64 (11800.00)
3136.50	52.07	198.88 (386.60)	3633.22 (11920.00)
3141.50	52.07	195.59 (380.20)	3657.60 (12000.00)
3144.50	64.03	195.59 (380.20)	3651.50 (11980.00)
3151.50	64.03	202.13 (392.90)	3645.41 (11960.00)
3156.50	64.03	202.13 (392.90)	3639.31 (11940.00)
3161.50	64.03	202.13 (392.90)	3645.41 (11960.00)
3166.50	64.03	202.07 (392.80)	3663.70 (12020.00)
3171.50	56.13	202.07 (392.80)	3672.84 (12050.00)
3176.50	52.07	202.07 (392.80)	3663.70 (12020.00)
3181.50	61.00	202.07 (392.80)	3657.60 (12000.00)
3182.00	67.85	202.07 (392.80)	3657.60 (12000.00)
3182.50	71.25	202.07 (392.80)	3663.70 (12020.00)
3186.50	78.00	195.64 (380.30)	3633.22 (11920.00)
3193.50	61.00	207.32 (403.00)	2871.22 (9420.00)
3196.50	31.10	225.02 (437.40)	2414.02 (7920.00)
3201.50	31.10	243.54 (473.40)	1719.07 (5640.00)
3206.50	31.10	252.23 (490.30)	1036.32 (3400.00)
3208.50	31.10	245.75 (477.70)	950.98 (3120.00)
3211.50	77.53	228.77 (444.70)	999.74 (3280.00)
3216.50	78.00	210.82 (409.80)	1463.04 (4800.00)
3221.50	78.00	199.80 (388.00)	1959.86 (6430.00)
3226.50	78.00	188.80 (367.00)	2328.67 (7640.00)
3231.50	78.00	184.84 (359.30)	2633.47 (8640.00)
3236.50	78.00	180.93 (351.70)	2895.60 (9500.00)
3241.50	78.00	187.26 (364.00)	3008.38 (9870.00)
3246.50	78.00	230.52 (448.10)	2813.30 (9230.00)
3251.50	78.00	254.24 (494.20)	2590.80 (8500.00)
3256.50	78.00	284.85 (553.70)	2340.86 (7680.00)
3261.50	78.00	277.13 (538.70)	2657.86 (8720.00)
3266.50	71.67	215.50 (418.90)	3517.39 (11540.00)
3271.50	68.59	167.91 (326.40)	3657.60 (12000.00)

3276.50	66.31	164.62(320.00)	3633.22(11920.00)
3281.50	65.54	164.62(320.00)	3657.60(12000.00)
3286.50	70.84	164.62(320.00)	3633.22(11920.00)
3291.50	71.67	164.62(320.00)	3657.60(12000.00)
3294.50	71.67	164.62(320.00)	3633.22(11920.00)
3295.50	71.67	67.39(131.00)	3633.22(11920.00)
3355.50	58.44	149.19(290.00)	3657.60(12000.00)
3955.50	58.44	149.19(290.00)	3657.60(12000.00)
4015.50	77.28	211.95(412.00)	3633.22(11920.00)
4016.50	69.68	211.95(412.00)	3633.22(11920.00)
4023.50	78.00	221.62(430.80)	3663.70(12020.00)
4028.50	57.90	224.97(437.30)	3645.41(11960.00)
4033.50	52.07	208.66(405.60)	3648.46(11970.00)
4038.50	63.29	208.71(405.70)	3627.12(11900.00)
4043.50	61.00	208.76(405.80)	3608.83(11840.00)
4048.50	61.00	208.66(405.60)	3633.22(11920.00)
4052.50	67.85	208.56(405.40)	3678.94(12070.00)
4058.50	78.00	221.16(429.90)	3837.43(12590.00)
4063.50	78.00	182.58(354.90)	3639.31(11940.00)
4068.50	59.18	216.43(420.70)	3166.87(10390.00)
4071.50	31.10	230.73(448.50)	2737.10(8980.00)
4077.00	31.10	252.33(490.50)	2124.46(6970.00)
4078.50	31.10	267.67(520.30)	1478.28(4850.00)
4083.50	31.10	269.62(524.10)	853.44(2800.00)
4086.50	68.59	256.40(498.40)	762.00(2500.00)
4089.50	78.00	242.71(471.80)	835.15(2740.00)
4093.50	78.00	235.10(457.00)	1149.10(3770.00)
4098.50	78.00	220.03(427.70)	1792.22(5880.00)
4103.50	77.53	208.76(405.80)	2292.10(7520.00)
4108.50	78.00	194.36(377.80)	2785.87(9140.00)
4113.50	78.00	183.76(357.20)	3118.10(10230.00)
4118.50	78.00	176.76(343.60)	3316.22(10880.00)
4122.50	78.00	176.71(343.50)	3331.46(10930.00)
4128.50	78.00	170.38(331.20)	3243.07(10640.00)
4133.50	78.00	163.90(318.60)	3191.26(10470.00)
4137.50	78.00	170.49(331.40)	3169.92(10400.00)
4143.50	78.00	176.92(343.90)	3243.07(10640.00)
4148.50	78.00	183.25(356.20)	3343.66(10970.00)
4153.50	78.00	183.04(355.80)	3429.00(11250.00)
4158.50	78.00	189.37(368.10)	3520.44(11550.00)
4163.50	63.29	195.75(380.50)	3587.50(11770.00)
4168.50	61.00	195.64(380.30)	3621.02(11880.00)
4173.50	61.00	195.64(380.30)	3627.12(11900.00)
4176.50	67.85	195.59(380.20)	3645.41(11960.00)
4177.50	69.32	195.59(380.20)	3657.60(12000.00)
4183.50	68.59	201.92(392.50)	3718.56(12200.00)
4188.50	67.09	201.92(392.50)	3727.70(12230.00)
4193.50	66.31	202.02(392.70)	3688.08(12100.00)
4198.50	71.67	198.78(386.40)	3675.89(12060.00)
4203.50	64.78	205.31(399.10)	3678.94(12070.00)

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4208.50	61.00	208.61(405.50)	3663.70(12020.00)
4211.00	70.84	208.61(405.50)	3657.60(12000.00)
4215.50	78.00	202.02(392.70)	3694.18(12120.00)
4216.00	78.00	195.49(380.00)	3694.18(12120.00)
4221.50	78.00	196.26(381.50)	3377.18(11080.00)
4225.50	64.03	223.73(434.90)	2895.60(9500.00)
4226.50	31.10	230.93(448.90)	2663.95(8740.00)
4230.50	31.10	249.35(484.70)	2023.87(6640.00)
4233.50	31.10	264.06(513.30)	1551.43(5090.00)
4237.50	31.10	268.95(522.80)	1066.80(3500.00)
4239.50	31.10	259.33(504.10)	908.30(2980.00)
4241.00	59.18	256.04(497.70)	890.02(2920.00)
4243.50	77.53	242.35(471.10)	950.98(3120.00)
4248.50	78.00	231.14(449.30)	1377.70(4520.00)
4253.50	78.00	219.62(426.90)	1947.67(6390.00)
4258.50	78.00	208.50(405.30)	2401.82(7880.00)
4263.50	78.00	204.39(397.30)	2718.82(8920.00)
4268.50	78.00	203.87(396.30)	2938.27(9640.00)
4273.50	78.00	210.15(408.50)	3054.10(10020.00)
4283.50	78.00	213.08(414.20)	3182.11(10440.00)
4286.50	78.00	216.38(420.60)	3188.21(10460.00)
4288.50	78.00	213.08(414.20)	3185.18(10450.00)
4293.50	78.00	213.03(414.10)	3212.59(10540.00)
4298.50	78.00	196.57(382.10)	3249.17(10660.00)
4303.50	78.00	202.95(394.50)	3322.32(10900.00)
4308.50	61.00	209.17(406.60)	3429.00(11250.00)
4313.50	60.08	208.92(406.10)	3535.68(11600.00)
4318.50	57.71	205.47(399.40)	3602.74(11820.00)
4323.50	52.07	202.23(393.10)	3608.83(11840.00)
4328.50	49.09	203.87(396.30)	3596.64(11800.00)
4333.50	52.07	198.88(386.60)	3633.22(11920.00)
4338.50	52.07	195.59(380.20)	3657.60(12000.00)
4341.50	64.03	195.59(380.20)	3651.50(11980.00)
4348.50	64.03	202.13(392.90)	3645.41(11960.00)
4353.50	64.03	202.13(392.90)	3639.31(11940.00)
4358.50	64.03	202.13(392.90)	3645.41(11960.00)
4363.50	64.03	202.07(392.80)	3663.70(12020.00)
4368.50	56.13	202.07(392.80)	3672.84(12050.00)
4373.50	52.07	202.07(392.80)	3663.70(12020.00)
4378.50	61.00	202.07(392.80)	3657.60(12000.00)
4379.00	67.85	202.07(392.80)	3657.60(12000.00)
4379.50	71.25	202.07(392.80)	3663.70(12020.00)
4383.50	78.00	195.64(380.30)	3633.22(11920.00)
4390.50	61.00	207.32(403.00)	2871.22(9420.00)
4393.50	31.10	225.02(437.40)	2414.02(7920.00)
4398.50	31.10	243.54(473.40)	1719.07(5640.00)
4403.50	31.10	252.23(490.30)	1036.32(3400.00)
4405.50	31.10	245.75(477.70)	950.98(3120.00)
4408.50	77.53	228.77(444.70)	999.74(3280.00)
4413.50	78.00	210.82(409.80)	1463.04(4800.00)

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4418.50	78.00	199.60 (388.00)	1959.86 (6430.00)
4423.50	78.00	188.80 (367.00)	2328.67 (7640.00)
4428.50	78.00	184.84 (359.30)	2633.47 (8640.00)
4433.50	78.00	180.93 (351.70)	2895.60 (9500.00)
4438.50	78.00	187.26 (364.00)	3008.38 (9870.00)
4443.50	78.00	230.52 (448.10)	2813.30 (9230.00)
4448.50	78.00	254.24 (494.20)	2590.80 (8500.00)
4453.50	78.00	284.85 (553.70)	2340.86 (7680.00)
4458.50	78.00	277.13 (538.70)	2657.86 (8720.00)
4463.50	71.67	215.50 (418.90)	3517.39 (11540.00)
4468.50	68.59	167.91 (326.40)	3657.60 (12000.00)
4473.50	66.31	164.62 (320.00)	3633.22 (11920.00)
4478.50	65.54	164.62 (320.00)	3657.60 (12000.00)
4483.50	70.84	164.62 (320.00)	3633.22 (11920.00)
4488.50	71.67	164.62 (320.00)	3657.60 (12000.00)
4491.50	71.67	164.62 (320.00)	3633.22 (11920.00)
4492.50	71.67	67.39 (131.00)	3633.22 (11920.00)
4552.50	58.44	149.19 (290.00)	3657.60 (12000.00)
5152.50	58.44	149.19 (290.00)	3657.60 (12000.00)
5212.50	77.28	211.95 (412.00)	3633.22 (11920.00)
5213.50	69.68	211.95 (412.00)	3633.22 (11920.00)
5220.50	78.00	221.62 (430.80)	3663.70 (12020.00)
5225.50	57.90	224.97 (437.30)	3645.41 (11960.00)
5230.50	52.07	208.66 (405.60)	3648.46 (11970.00)
5235.50	63.29	208.71 (405.70)	3627.12 (11900.00)
5240.50	61.00	208.76 (405.80)	3608.83 (11840.00)
5245.50	61.00	208.66 (405.60)	3633.22 (11920.00)
5249.50	67.85	208.56 (405.40)	3678.94 (12070.00)
5255.50	78.00	221.16 (429.90)	3837.43 (12590.00)
5260.50	78.00	182.58 (354.90)	3639.31 (11940.00)
5265.50	59.18	216.43 (420.70)	3166.67 (10390.00)
5268.50	31.10	230.73 (448.50)	2737.10 (8980.00)
5274.00	31.10	252.33 (490.50)	2124.46 (6970.00)
5275.50	31.10	267.67 (520.30)	1478.28 (4850.00)
5280.50	31.10	269.62 (524.10)	853.44 (2800.00)
5283.50	68.59	256.40 (498.40)	762.00 (2500.00)
5286.50	78.00	242.71 (471.80)	835.15 (2740.00)
5290.50	78.00	235.10 (457.00)	1149.10 (3770.00)
5295.50	78.00	220.03 (427.70)	1792.22 (5880.00)
5300.50	77.53	208.76 (405.80)	2292.10 (7520.00)
5305.50	78.00	194.36 (377.80)	2785.87 (9140.00)
5310.50	78.00	183.76 (357.20)	3118.10 (10230.00)
5315.50	78.00	176.76 (343.60)	3316.22 (10880.00)
5319.50	78.00	176.71 (343.50)	3331.46 (10930.00)
5325.50	78.00	170.38 (331.20)	3243.07 (10640.00)
5330.50	78.00	163.90 (318.60)	3191.26 (10470.00)
5334.50	78.00	170.49 (331.40)	3169.92 (10400.00)
5340.50	78.00	176.92 (343.90)	3243.07 (10640.00)
5345.50	78.00	183.25 (356.20)	3343.66 (10970.00)
5350.50	78.00	183.04 (355.80)	3429.00 (11250.00)

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5355.50	78.00	189.37(368.10)	3520.44(11550.00)
5360.50	63.29	195.75(380.50)	3587.50(11770.00)
5365.50	61.00	195.64(380.30)	3621.02(11880.00)
5370.50	61.00	195.64(380.30)	3627.12(11900.00)
5373.50	67.85	195.59(380.20)	3645.41(11960.00)
5374.50	69.32	195.59(380.20)	3657.60(12000.00)
5380.50	68.59	201.92(392.50)	3718.56(12200.00)
5385.50	67.09	201.92(392.50)	3727.70(12230.00)
5390.50	66.31	202.02(392.70)	3688.08(12100.00)
5395.50	71.67	198.78(386.40)	3675.89(12060.00)
5400.50	64.03	205.31(399.10)	3678.94(12070.00)
5405.50	61.00	208.61(405.50)	3663.70(12020.00)
5408.00	70.84	208.61(405.50)	3657.60(12000.00)
5412.50	78.00	202.02(392.70)	3694.18(12120.00)
5413.00	78.00	195.49(380.00)	3694.18(12120.00)
5418.50	78.00	196.26(381.50)	3377.18(11080.00)
5422.50	64.03	223.73(434.90)	2895.60(9500.00)
5423.50	31.10	230.93(448.90)	2663.95(8740.00)
5427.50	31.10	249.35(484.70)	2023.87(6640.00)
5430.50	31.10	264.06(513.30)	1551.43(5090.00)
5434.50	31.10	268.95(522.80)	1066.80(3500.00)
5436.50	31.10	259.33(504.10)	908.30(2980.00)
5438.00	59.18	256.04(497.70)	890.02(2920.00)
5440.50	77.53	242.35(471.10)	950.98(3120.00)
5445.50	78.00	231.14(449.30)	1377.70(4520.00)
5450.50	78.00	219.62(426.90)	1947.67(6390.00)
5455.50	78.00	208.50(405.30)	2401.82(7880.00)
5460.50	78.00	204.39(397.30)	2718.82(8920.00)
5465.50	78.00	203.87(396.30)	2938.27(9640.00)
5470.50	78.00	210.15(408.50)	3054.10(10020.00)
5480.50	78.00	213.08(414.20)	3182.11(10440.00)
5483.50	78.00	216.38(420.60)	3188.21(10460.00)
5485.50	78.00	213.08(414.20)	3185.16(10450.00)
5490.50	78.00	213.03(414.10)	3212.59(10540.00)
5495.50	78.00	196.57(382.10)	3249.17(10660.00)
5500.50	78.00	202.95(394.50)	3322.32(10900.00)
5505.50	61.00	209.17(406.60)	3429.00(11250.00)
5510.50	60.08	208.92(406.10)	3535.68(11600.00)
5515.50	57.71	205.47(399.40)	3602.74(11820.00)
5520.50	52.07	202.23(393.10)	3608.83(11840.00)
5525.50	49.09	203.87(396.30)	3596.64(11800.00)
5530.50	52.07	198.88(386.60)	3633.22(11920.00)
5535.50	52.07	195.59(380.20)	3657.60(12000.00)
5538.50	64.03	195.59(380.20)	3651.50(11980.00)
5545.50	64.03	202.13(392.90)	3645.41(11960.00)
5550.50	64.03	202.13(392.90)	3639.31(11940.00)
5555.50	64.03	202.13(392.90)	3645.41(11960.00)
5560.50	64.03	202.07(392.80)	3663.70(12020.00)
5565.50	56.13	202.07(392.80)	3672.84(12050.00)
5570.50	52.07	202.07(392.80)	3663.70(12020.00)

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5575.50	61.00	202.07 (392.80)	3657.60 (12000.00)
5576.00	67.85	202.07 (392.80)	3657.60 (12000.00)
5576.50	71.25	202.07 (392.80)	3663.70 (12020.00)
5580.50	78.00	195.64 (380.30)	3633.22 (11920.00)
5587.50	61.00	207.32 (403.00)	2871.22 (9420.00)
5590.50	31.10	225.02 (437.40)	2414.02 (7920.00)
5595.50	31.10	243.54 (473.40)	1719.07 (5640.00)
5600.50	31.10	252.23 (490.30)	1036.32 (3400.00)
5602.50	31.10	245.75 (477.70)	950.98 (3120.00)
5605.50	77.53	228.77 (444.70)	999.74 (3280.00)
5610.50	78.00	210.82 (409.80)	1463.04 (4800.00)
5615.50	78.00	199.60 (388.00)	1959.86 (6430.00)
5620.50	78.00	188.80 (367.00)	2328.67 (7640.00)
5625.50	78.00	184.84 (359.30)	2633.47 (8640.00)
5630.50	78.00	180.93 (351.70)	2895.60 (9500.00)
5635.50	78.00	187.26 (364.00)	3008.38 (9870.00)
5640.50	78.00	230.52 (448.10)	2813.30 (9230.00)
5645.50	78.00	254.24 (494.20)	2590.80 (8500.00)
5650.50	78.00	284.85 (553.70)	2340.86 (7680.00)
5655.50	78.00	277.13 (538.70)	2657.86 (8720.00)
5660.50	71.67	215.50 (418.90)	3517.39 (11540.00)
5665.50	68.59	167.91 (326.40)	3657.60 (12000.00)
5670.50	66.31	164.62 (320.00)	3633.22 (11920.00)
5675.50	65.54	164.62 (320.00)	3657.60 (12000.00)
5680.50	70.84	164.62 (320.00)	3633.22 (11920.00)
5685.50	71.67	164.62 (320.00)	3657.60 (12000.00)
5688.50	71.67	164.62 (320.00)	3633.22 (11920.00)
5689.50	71.67	164.62 (320.00)	3633.22 (11920.00)
5719.50	60.08	164.62 (320.00)	3633.22 (11920.00)
6319.50	60.08	164.62 (320.00)	3633.22 (11920.00)
6389.50	52.07	144.04 (280.00)	3352.80 (11000.00)
6689.50	52.07	144.04 (280.00)	1371.60 (4500.00)
6690.50	58.13	164.62 (320.00)	1371.60 (4500.00)
6750.50	57.71	154.33 (300.00)	1371.60 (4500.00)
6810.50	58.00	149.19 (290.00)	1341.12 (4400.00)
6870.50	57.71	149.19 (290.00)	1280.16 (4200.00)
6930.50	59.18	144.04 (280.00)	1249.68 (4100.00)
6990.50	58.17	133.76 (260.00)	1280.16 (4200.00)
7050.50	58.17	128.61 (250.00)	1249.68 (4100.00)
7110.50	58.17	128.61 (250.00)	1219.20 (4000.00)
7170.50	57.90	128.61 (250.00)	1219.20 (4000.00)
7230.50	57.71	128.61 (250.00)	1188.72 (3900.00)
7290.50	57.71	133.76 (260.00)	1066.80 (3500.00)
7350.50	46.10	133.76 (260.00)	914.40 (3000.00)
7410.50	43.10	128.61 (250.00)	762.00 (2500.00)
7470.50	57.71	128.61 (250.00)	640.08 (2100.00)
7530.50	46.10	133.76 (260.00)	609.80 (2000.00)
7531.50	46.10	126.04 (245.00)	597.41 (1960.00)
7534.50	46.10	126.04 (245.00)	591.31 (1940.00)
7539.50	34.10	126.04 (245.00)	585.22 (1920.00)

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7544.50	34.10	128.61 (250.00)	548.64 (1800.00)
7549.50	34.10	128.61 (250.00)	515.11 (1690.00)
7554.50	34.10	126.04 (245.00)	493.78 (1620.00)
7559.50	34.10	126.04 (245.00)	481.58 (1580.00)
7564.50	34.10	120.89 (235.00)	466.34 (1530.00)
7569.50	34.10	115.75 (225.00)	469.39 (1540.00)
7571.50	56.92	115.75 (225.00)	466.34 (1530.00)
7574.50	31.10	115.75 (225.00)	463.30 (1520.00)
7579.50	31.10	110.61 (215.00)	441.96 (1450.00)
7584.50	34.10	102.89 (200.00)	438.91 (1440.00)
7589.50	34.10	92.60 (180.00)	457.20 (1500.00)
7594.50	34.10	82.31 (160.00)	448.06 (1470.00)
7599.50	64.03	78.20 (152.00)	426.72 (1400.00)
7604.50	64.03	82.31 (160.00)	420.62 (1380.00)
7609.50	59.18	77.17 (150.00)	420.62 (1380.00)
7614.50	67.85	77.17 (150.00)	420.62 (1380.00)
7619.50	60.08	77.17 (150.00)	420.62 (1380.00)
7624.50	67.85	77.17 (150.00)	420.62 (1380.00)
7626.50	68.59	77.17 (150.00)	420.62 (1380.00)
7632.50	34.10	77.17 (150.00)	396.24 (1300.00)
7637.00	67.85	77.17 (150.00)	368.81 (1210.00)
7639.50	61.82	79.74 (155.00)	344.42 (1130.00)
7644.50	67.85	79.74 (155.00)	326.14 (1070.00)
7649.50	46.10	81.28 (158.00)	310.90 (1020.00)
7654.50	60.08	77.17 (150.00)	292.61 (960.00)
7659.50	64.03	78.20 (152.00)	259.08 (850.00)
7661.50	70.06	79.22 (154.00)	252.98 (830.00)
7664.50	59.18	82.31 (160.00)	243.84 (800.00)
7666.00	49.09	82.31 (160.00)	240.79 (790.00)
7669.50	60.08	78.20 (152.00)	234.70 (770.00)
7671.50	67.85	78.20 (152.00)	228.60 (750.00)
7674.50	61.82	80.77 (157.00)	219.46 (720.00)
7676.50	62.93	80.77 (157.00)	213.36 (700.00)
7784.50	64.03	81.80 (159.00)	182.88 (600.00)
7785.50	64.03	81.80 (159.00)	182.88 (600.00)
7787.00	70.06	82.31 (160.00)	179.83 (590.00)
7790.50	61.00	83.34 (162.00)	178.31 (585.00)
7794.50	34.10	82.31 (160.00)	172.21 (565.00)
7797.50	64.03	79.22 (154.00)	146.30 (480.00)
7800.50	66.31	82.31 (160.00)	134.11 (440.00)
7805.50	61.42	82.31 (160.00)	112.78 (370.00)
7810.50	57.71	82.31 (160.00)	91.44 (300.00)

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7811.50	53.56	82.31 (160.00)	82.30 (270.00)
7813.00	53.56	82.31 (160.00)	79.25 (260.00)
7815.50	40.10	82.31 (160.00)	60.96 (200.00)
7818.50	67.85	83.85 (163.00)	30.48 (	100.00)
7823.50	53.56	83.85 (163.00)	12.19 (	40.00)
7824.50	53.56	84.37 (164.00)	9.14 (	30.00)
7830.50	34.10	77.17 (150.00)	.00 (	.00)
7845.50	34.10	15.43 (30.00)	.00 (	.00)
7903.50	34.10	.00 (.00)	.00 (	.00)
7905.50	34.10	.00 (.00)	.00 (	.00)
7907.50	60.08	.00 (.00)	.00 (	.00)
7925.50	34.10	.00 (.00)	.00 (	.00)
7927.50	34.10	.00 (.00)	.00 (	.00)
7929.50	60.08	.00 (.00)	.00 (	.00)
8385.50	34.10	.00 (.00)	.00 (	.00)

F404-GE-400 DUTY TEST CYCLE #9

TIME (sec)	PLA (°)	IAS m/s (kts)	ALT m (ft)
.00	34.10	.00 (.00)	.00 (.00)
30.00	34.10	.00 (.00)	.00 (.00)
60.00	34.10	.00 (.00)	.00 (.00)
90.00	34.10	.00 (.00)	.00 (.00)
120.00	60.08	.00 (.00)	.00 (.00)
125.00	34.10	.00 (.00)	.00 (.00)
155.00	60.08	.00 (.00)	.00 (.00)
160.00	34.10	.00 (.00)	.00 (.00)
200.00	34.10	.00 (.00)	.00 (.00)
210.00	79.00	.00 (.00)	.00 (.00)
220.00	34.10	.00 (.00)	.00 (.00)
1200.00	34.10	.00 (.00)	.00 (.00)
1201.00	79.00	.00 (.00)	.00 (.00)
1212.50	130.00	41.16 (80.00)	12.19 (40.00)
1217.50	130.00	61.73 (120.00)	15.24 (50.00)
1222.50	130.00	79.74 (155.00)	18.29 (60.00)
1227.50	130.00	92.60 (180.00)	30.48 (100.00)
1232.50	130.00	110.61 (215.00)	68.58 (225.00)
1237.50	130.00	123.47 (240.00)	140.21 (460.00)
1242.50	78.50	133.76 (260.00)	268.22 (880.00)
1244.50	69.32	138.90 (270.00)	335.28 (1100.00)
1246.00	47.60	138.90 (270.00)	350.52 (1150.00)
1247.50	35.60	138.90 (270.00)	362.71 (1190.00)
1250.50	58.17	138.90 (270.00)	377.95 (1240.00)
1251.50	58.44	138.90 (270.00)	379.48 (1245.00)
1257.50	62.57	138.90 (270.00)	379.78 (1246.00)
1262.50	62.57	138.90 (270.00)	388.62 (1275.00)
1267.50	65.92	141.47 (275.00)	402.34 (1320.00)
1272.50	68.59	149.19 (290.00)	420.62 (1380.00)
1277.50	63.29	154.33 (300.00)	420.62 (1380.00)
1282.50	63.29	151.76 (295.00)	449.58 (1475.00)
1287.50	71.67	151.76 (295.00)	518.16 (1700.00)
1292.50	78.00	154.33 (300.00)	630.94 (2070.00)
1297.50	75.52	154.33 (300.00)	774.19 (2540.00)
1302.50	75.52	149.19 (290.00)	960.12 (3150.00)
1307.50	75.52	149.19 (290.00)	1104.90 (3625.00)
1311.50	75.93	149.19 (290.00)	1216.15 (3990.00)
1315.50	78.50	149.19 (290.00)	1310.64 (4300.00)
1316.50	78.00	149.19 (290.00)	1341.12 (4400.00)
1317.50	78.00	180.06 (350.00)	1341.12 (4400.00)
1517.50	78.00	180.06 (350.00)	2743.20 (9000.00)
1817.50	78.00	180.06 (350.00)	4572.00 (15000.00)
1917.50	58.44	154.33 (300.00)	4572.00 (15000.00)
1918.50	46.10	155.36 (302.00)	4572.00 (15000.00)
1948.50	46.10	155.36 (302.00)	4572.00 (15000.00)
1978.50	46.10	154.62 (320.00)	4572.00 (15000.00)
2218.50	46.10	155.36 (302.00)	6089.90 (19980.00)
2219.50	58.44	155.36 (302.00)	6089.90 (19980.00)

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2279.50	46.10	164.62(320.00)	5943.60(19500.00)
2579.50	58.44	180.06(350.00)	5821.68(19100.00)
2639.50	31.10	205.78(400.00)	5273.04(17300.00)
2640.50	31.10	205.78(400.00)	5273.04(17300.00)
2643.50	31.10	218.64(425.00)	4767.07(15640.00)
2648.50	31.10	249.51(485.00)	3681.98(12080.00)
2653.50	31.10	257.22(500.00)	2584.70(8480.00)
2658.50	31.10	241.79(470.00)	2154.94(7070.00)
2663.50	31.10	226.36(440.00)	1975.10(6480.00)
2668.50	31.10	213.49(415.00)	1935.48(6350.00)
2673.50	31.10	205.78(400.00)	1901.95(6240.00)
2678.50	31.10	200.63(390.00)	1844.04(6050.00)
2683.50	31.10	195.49(380.00)	1780.03(5840.00)
2684.50	31.10	190.34(370.00)	1764.79(5790.00)
2687.50	70.84	190.34(370.00)	1758.70(5770.00)
2688.50	77.53	187.77(365.00)	1761.74(5780.00)
2690.50	62.20	190.34(370.00)	1767.84(5800.00)
2691.50	69.68	190.34(370.00)	1780.03(5840.00)
2698.50	64.03	200.63(390.00)	1758.70(5770.00)
2703.50	61.00	205.78(400.00)	1673.35(5490.00)
2708.50	58.78	205.78(400.00)	1612.39(5290.00)
2713.50	58.44	205.78(400.00)	1584.96(5200.00)
2718.50	59.18	210.92(410.00)	1551.43(5090.00)
2723.50	59.18	216.07(420.00)	1493.52(4900.00)
2728.50	59.18	216.07(420.00)	1475.23(4840.00)
2733.50	59.18	218.64(425.00)	1478.28(4850.00)
2738.50	59.18	218.64(425.00)	1463.04(4800.00)
2743.50	59.18	218.64(425.00)	1487.42(4880.00)
2748.50	59.18	218.64(425.00)	1493.52(4900.00)
2753.50	59.18	218.64(425.00)	1499.62(4920.00)
2758.50	59.18	218.64(425.00)	1487.42(4880.00)
2763.50	59.18	218.64(425.00)	1493.52(4900.00)
2768.50	59.18	216.07(420.00)	1496.57(4910.00)
2773.50	59.18	216.07(420.00)	1524.00(5000.00)
2778.50	59.18	216.07(420.00)	1539.24(5050.00)
2783.50	60.08	213.49(415.00)	1548.38(5080.00)
2788.50	59.62	213.49(415.00)	1530.10(5020.00)
2793.50	60.08	213.49(415.00)	1499.62(4920.00)
2798.50	59.18	216.07(420.00)	1478.28(4850.00)
2803.50	59.62	216.07(420.00)	1469.14(4820.00)
2808.50	70.84	216.07(420.00)	1505.71(4940.00)
2813.50	78.50	223.78(435.00)	1499.62(4920.00)
2818.50	78.75	216.07(420.00)	1426.46(4680.00)
2823.50	79.00	226.36(440.00)	1353.31(4440.00)
2826.00	78.50	231.50(450.00)	1325.88(4350.00)
2828.50	31.10	231.50(450.00)	1304.54(4280.00)
2833.50	31.10	218.64(425.00)	1295.40(4250.00)
2838.80	31.10	205.78(400.00)	1301.50(4270.00)
2843.50	31.10	192.92(375.00)	1450.85(4760.00)
2848.50	31.10	180.06(350.00)	1554.48(5100.00)

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2853.50	31.10	174.91 (340.00)	1542.29 (5060.00)
2858.50	31.10	167.19 (325.00)	1524.00 (5000.00)
2863.50	31.10	162.05 (315.00)	1505.71 (4940.00)
2868.50	31.10	156.91 (305.00)	1493.52 (4900.00)
2873.50	31.10	154.33 (300.00)	1478.28 (4850.00)
2878.50	34.10	146.62 (285.00)	1463.04 (4800.00)
2881.50	46.10	144.04 (280.00)	1453.90 (4770.00)
2885.50	34.10	141.47 (275.00)	1444.75 (4740.00)
2889.00	70.84	141.47 (275.00)	1444.75 (4740.00)
2893.50	78.50	154.33 (300.00)	1423.42 (4670.00)
2898.50	78.50	174.91 (340.00)	1377.70 (4520.00)
2903.50	79.00	205.78 (400.00)	1386.84 (4550.00)
2908.50	79.00	190.34 (370.00)	1331.98 (4370.00)
2913.50	78.50	195.49 (380.00)	1200.91 (3940.00)
2918.50	78.80	205.78 (400.00)	1386.84 (4550.00)
2920.50	79.00	205.78 (400.00)	1630.68 (5350.00)
2921.50	78.50	205.78 (400.00)	1645.92 (5400.00)
3101.50	78.50	185.20 (360.00)	4419.60 (14500.00)
3281.50	78.50	164.62 (320.00)	7010.40 (23000.00)
3461.50	78.50	154.33 (300.00)	9144.00 (30000.00)
3521.50	69.32	167.19 (325.00)	9144.00 (30000.00)
3641.50	69.32	180.06 (350.00)	9022.06 (29600.00)
3671.50	76.32	214.01 (416.00)	8528.30 (27980.00)
3672.50	76.32	214.06 (416.10)	8528.30 (27980.00)
3680.50	76.32	216.17 (420.20)	8839.20 (29000.00)
3685.50	75.52	221.88 (431.30)	8967.22 (29420.00)
3690.50	76.32	230.73 (448.50)	9052.56 (29700.00)
3695.50	76.32	239.47 (465.50)	9150.10 (30020.00)
3700.50	76.32	248.27 (482.60)	9241.54 (30320.00)
3705.50	76.32	257.12 (499.80)	9302.50 (30520.00)
3710.50	77.00	266.07 (517.20)	9339.07 (30640.00)
3715.50	78.05	277.90 (540.20)	9406.13 (30860.00)
3720.50	78.00	286.39 (556.70)	9534.14 (31280.00)
3725.50	78.00	291.79 (567.20)	9692.64 (31800.00)
3730.50	78.00	296.27 (575.90)	10046.21 (32960.00)
3735.50	78.00	298.69 (580.60)	10174.22 (33380.00)
3739.50	71.67	293.85 (571.20)	9912.10 (32520.00)
3742.00	71.67	293.23 (570.00)	10058.40 (33000.00)
3743.50	71.67	292.98 (569.50)	10117.84 (33195.00)
3745.00	71.67	293.49 (570.50)	10000.49 (32810.00)
3746.00	71.67	293.13 (569.80)	10082.78 (33080.00)
3752.50	71.67	293.85 (571.20)	9918.19 (32540.00)
3754.50	71.67	293.70 (570.90)	9948.67 (32640.00)
3760.50	71.67	288.50 (560.80)	9753.60 (32000.00)
3765.50	71.67	285.41 (554.80)	9777.98 (32080.00)
3770.50	71.67	285.11 (554.20)	9851.14 (32320.00)
3775.50	71.67	281.81 (547.80)	9918.19 (32540.00)
3780.50	71.25	281.61 (547.40)	9966.96 (32700.00)
3785.50	71.25	287.57 (559.00)	9982.20 (32750.00)
3790.50	71.67	281.61 (547.40)	9976.10 (32730.00)

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3795.50	77.00	287.78 (559.40)	9927.34 (32570.00)
3800.50	77.53	287.83 (559.50)	9921.24 (32550.00)
3805.50	77.53	287.88 (559.60)	9906.00 (32500.00)
3810.50	77.53	287.99 (559.80)	9875.52 (32400.00)
3815.50	77.53	288.29 (560.40)	9808.46 (32180.00)
3820.50	78.00	276.77 (538.00)	9686.54 (31780.00)
3825.50	78.25	284.33 (552.70)	9308.59 (30540.00)
3830.50	78.50	280.99 (546.20)	8622.79 (28290.00)
3835.50	79.00	278.42 (541.20)	7693.15 (25240.00)
3840.50	78.75	294.16 (571.80)	6839.71 (22440.00)
3845.00	78.75	311.55 (605.60)	6419.09 (21060.00)
3845.50	78.50	311.86 (606.20)	6339.84 (20800.00)
3846.00	79.00	311.39 (605.30)	6458.71 (21190.00)
3846.50	79.00	305.22 (593.30)	6431.28 (21100.00)
3848.50	79.00	295.86 (575.10)	6412.99 (21040.00)
3855.50	78.50	281.30 (546.80)	6931.15 (22740.00)
3860.50	78.75	279.55 (543.40)	7403.59 (24290.00)
3865.50	78.50	287.27 (558.40)	7805.93 (25610.00)
3870.50	79.00	288.65 (561.10)	8232.65 (27010.00)
3875.50	78.00	280.68 (545.60)	8695.94 (28530.00)
3880.50	78.00	273.38 (531.40)	9012.94 (29570.00)
3885.50	78.00	265.86 (516.80)	9387.84 (30800.00)
3890.50	78.00	258.71 (502.90)	9692.64 (31800.00)
3895.50	78.00	255.01 (495.70)	9875.52 (32400.00)
3900.50	78.00	254.60 (494.90)	9979.15 (32740.00)
3905.50	78.00	254.39 (494.50)	10046.21 (32960.00)
3910.50	78.00	257.22 (500.00)	10082.78 (33080.00)
3915.50	78.00	269.11 (523.10)	10107.17 (33160.00)
3920.50	130.00	275.02 (534.60)	10119.36 (33200.00)
3925.50	130.00	274.66 (533.90)	10204.70 (33480.00)
3930.50	130.00	273.79 (532.20)	10433.30 (34230.00)
3935.50	130.00	275.74 (536.00)	10671.05 (35010.00)
3940.50	130.00	278.37 (541.10)	10753.34 (35280.00)
3944.50	130.00	272.40 (529.50)	10765.54 (35320.00)
3950.50	130.00	269.83 (524.50)	10674.10 (35020.00)
3951.50	130.00	269.93 (524.70)	10643.62 (34920.00)
3955.00	130.00	270.44 (525.70)	10521.70 (34520.00)
3960.50	130.00	286.44 (556.80)	10253.47 (33640.00)
3965.50	130.00	287.47 (558.80)	10000.49 (32810.00)
3970.50	130.00	295.60 (574.60)	9503.66 (31180.00)
3975.50	130.00	304.19 (591.30)	8906.26 (29220.00)
3980.50	130.00	319.06 (620.20)	8309.80 (27250.00)
3985.50	130.00	340.25 (661.40)	7702.30 (25270.00)
3990.50	130.00	337.01 (655.10)	7059.17 (23160.00)
3995.50	130.00	342.67 (666.10)	6498.34 (21320.00)
4000.50	130.00	331.71 (644.80)	6126.48 (20100.00)
4005.50	130.00	319.47 (621.00)	6031.99 (19790.00)
4010.50	130.00	313.04 (608.50)	6059.42 (19880.00)
4015.50	130.00	303.26 (589.50)	6126.48 (20100.00)
4016.50	130.00	302.65 (588.30)	6284.98 (20620.00)

4020.50	130.00	297.35 (578.00)	6025.90 (19770.00)
4025.50	130.00	290.92 (565.50)	6050.28 (19850.00)
4030.50	130.00	287.73 (559.30)	6065.52 (19900.00)
4035.50	130.00	284.59 (553.20)	6059.42 (19880.00)
4040.50	130.00	284.59 (553.20)	6053.33 (19860.00)
4045.50	130.00	284.64 (553.30)	6041.14 (19820.00)
4050.50	130.00	284.64 (553.30)	6035.04 (19800.00)
4055.50	130.00	284.69 (553.40)	6022.85 (19760.00)
4060.50	130.00	278.31 (541.00)	6041.14 (19820.00)
4063.50	130.00	278.26 (540.90)	6050.28 (19850.00)
4070.50	78.00	278.26 (540.90)	6047.23 (19840.00)
4075.50	78.00	275.07 (534.70)	6059.42 (19880.00)
4080.50	78.00	275.07 (534.70)	6065.52 (19900.00)
4085.50	78.00	271.83 (528.40)	6080.76 (19950.00)
4090.50	78.00	271.83 (528.40)	6086.86 (19970.00)
4095.50	78.00	271.83 (528.40)	6086.86 (19970.00)
4100.50	78.00	271.83 (528.40)	6083.81 (19960.00)
4105.50	78.00	271.94 (528.60)	6050.28 (19850.00)
4110.50	58.44	271.94 (528.60)	6059.42 (19880.00)
4115.50	58.17	271.88 (528.50)	6068.57 (19910.00)
4120.50	58.78	268.75 (522.40)	6065.52 (19900.00)
4125.50	58.78	268.64 (522.20)	6089.90 (19980.00)
4130.50	59.18	268.54 (522.00)	6119.77 (20078.00)
4135.50	59.18	268.59 (522.10)	6108.19 (20040.00)
4140.50	59.18	268.64 (522.20)	6096.00 (20000.00)
4145.50	59.18	268.64 (522.20)	6096.00 (20000.00)
4150.50	59.18	265.45 (516.00)	6096.00 (20000.00)
4155.50	59.18	268.64 (522.20)	6092.95 (19990.00)
4160.50	58.44	268.64 (522.20)	6089.90 (19980.00)
4165.50	58.44	265.50 (516.10)	6089.90 (19980.00)
4166.50	58.44	162.56 (316.00)	6089.90 (19980.00)
4226.50	46.10	164.62 (320.00)	5943.60 (19500.00)
4526.50	58.44	180.06 (350.00)	5821.68 (19100.00)
4586.50	31.10	205.78 (400.00)	5273.04 (17300.00)
4587.50	31.10	205.78 (400.00)	5273.04 (17300.00)
4590.50	31.10	218.64 (425.00)	4767.07 (15640.00)
4595.50	31.10	249.51 (485.00)	3681.98 (12080.00)
4600.50	31.10	257.22 (500.00)	2584.70 (8480.00)
4605.50	31.10	241.79 (470.00)	2154.94 (7070.00)
4610.50	31.10	226.36 (440.00)	1975.10 (6480.00)
4615.50	31.10	213.49 (415.00)	1935.48 (6350.00)
4620.50	31.10	205.78 (400.00)	1901.95 (6240.00)
4625.50	31.10	200.63 (390.00)	1844.04 (6050.00)
4630.50	31.10	195.49 (380.00)	1780.03 (5840.00)
4631.50	31.10	190.34 (370.00)	1764.79 (5790.00)
4634.50	70.84	190.34 (370.00)	1758.70 (5770.00)
4635.50	77.53	187.77 (365.00)	1761.74 (5780.00)
4637.50	62.20	190.34 (370.00)	1767.84 (5800.00)
4638.50	69.68	190.34 (370.00)	1780.03 (5840.00)
4645.50	64.03	200.63 (390.00)	1758.70 (5770.00)

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4650.50	61.00	205.78 (400.00)	1673.35 (5490.00)
4655.50	58.78	205.78 (400.00)	1612.39 (5290.00)
4660.50	58.44	205.78 (400.00)	1584.96 (5200.00)
4665.50	59.18	210.92 (410.00)	1551.43 (5090.00)
4670.50	59.18	216.07 (420.00)	1493.52 (4900.00)
4675.50	59.18	216.07 (420.00)	1475.23 (4840.00)
4680.50	59.18	218.64 (425.00)	1478.28 (4850.00)
4685.50	59.18	218.64 (425.00)	1463.04 (4800.00)
4690.50	59.18	218.64 (425.00)	1487.42 (4880.00)
4695.50	59.18	218.64 (425.00)	1493.52 (4900.00)
4700.50	59.18	218.64 (425.00)	1499.62 (4920.00)
4705.50	59.18	218.64 (425.00)	1487.42 (4880.00)
4710.50	59.18	218.64 (425.00)	1493.52 (4900.00)
4715.50	59.18	216.07 (420.00)	1496.57 (4910.00)
4720.50	59.18	216.07 (420.00)	1524.00 (5000.00)
4725.50	59.18	216.07 (420.00)	1539.24 (5050.00)
4730.50	60.08	213.49 (415.00)	1548.38 (5080.00)
4735.50	59.62	213.49 (415.00)	1530.10 (5020.00)
4740.50	60.08	213.49 (415.00)	1499.62 (4920.00)
4745.50	59.18	216.07 (420.00)	1478.28 (4850.00)
4750.50	59.62	216.07 (420.00)	1469.14 (4820.00)
4755.50	70.84	216.07 (420.00)	1505.71 (4940.00)
4760.50	78.50	223.78 (435.00)	1499.62 (4920.00)
4765.50	78.75	216.07 (420.00)	1426.46 (4680.00)
4770.50	79.00	226.36 (440.00)	1353.31 (4440.00)
4773.00	78.50	231.50 (450.00)	1325.88 (4350.00)
4775.50	31.10	231.50 (450.00)	1304.54 (4280.00)
4780.50	31.10	218.64 (425.00)	1295.40 (4250.00)
4785.80	31.10	205.78 (400.00)	1301.50 (4270.00)
4790.50	31.10	192.92 (375.00)	1450.85 (4760.00)
4795.50	31.10	180.06 (350.00)	1554.48 (5100.00)
4800.50	31.10	174.91 (340.00)	1542.29 (5060.00)
4805.50	31.10	167.19 (325.00)	1524.00 (5000.00)
4810.50	31.10	162.05 (315.00)	1505.71 (4940.00)
4815.50	31.10	156.91 (305.00)	1493.52 (4900.00)
4820.50	31.10	154.33 (300.00)	1478.28 (4850.00)
4825.50	34.10	146.62 (285.00)	1463.04 (4800.00)
4828.50	46.10	144.04 (280.00)	1453.90 (4770.00)
4832.50	34.10	141.47 (275.00)	1444.75 (4740.00)
4836.00	70.84	141.47 (275.00)	1444.75 (4740.00)
4840.50	78.50	154.33 (300.00)	1423.42 (4670.00)
4845.50	78.50	174.91 (340.00)	1377.70 (4520.00)
4850.50	79.00	205.78 (400.00)	1386.84 (4550.00)
4855.50	79.00	190.34 (370.00)	1331.98 (4370.00)
4860.50	78.50	195.49 (380.00)	1200.91 (3940.00)
4865.50	78.80	205.78 (400.00)	1386.84 (4550.00)
4867.50	79.00	205.78 (400.00)	1630.68 (5350.00)
4868.50	78.50	200.63 (390.00)	1615.44 (5300.00)
4928.50	57.71	154.33 (300.00)	1371.60 (4500.00)
4988.50	58.00	149.19 (290.00)	1341.12 (4400.00)

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5048.50	57.71	149.19 (290.00)	1280.16 (4200.00)
5108.50	59.18	144.04 (280.00)	1249.68 (4100.00)
5168.50	58.17	133.76 (260.00)	1280.16 (4200.00)
5228.50	58.17	128.61 (250.00)	1249.68 (4100.00)
5288.50	58.17	128.61 (250.00)	1219.20 (4000.00)
5348.50	57.90	128.61 (250.00)	1219.20 (4000.00)
5408.50	57.71	128.61 (250.00)	1188.72 (3900.00)
5468.50	57.71	133.76 (260.00)	1066.80 (3500.00)
5528.50	46.10	133.76 (260.00)	914.40 (3000.00)
5588.50	43.10	128.61 (250.00)	762.00 (2500.00)
5648.50	57.71	128.61 (250.00)	640.08 (2100.00)
5708.50	46.10	133.76 (260.00)	609.60 (2000.00)
5709.50	46.10	126.04 (245.00)	597.41 (1960.00)
5712.50	46.10	126.04 (245.00)	591.31 (1940.00)
5717.50	34.10	126.04 (245.00)	585.22 (1920.00)
5722.50	34.10	128.61 (250.00)	548.64 (1800.00)
5727.50	34.10	128.61 (250.00)	515.11 (1690.00)
5732.50	34.10	126.04 (245.00)	493.78 (1620.00)
5737.50	34.10	126.04 (245.00)	481.58 (1580.00)
5742.50	34.10	120.89 (235.00)	466.34 (1530.00)
5747.50	34.10	115.75 (225.00)	469.39 (1540.00)
5749.50	56.92	115.75 (225.00)	466.34 (1530.00)
5752.50	31.10	115.75 (225.00)	463.30 (1520.00)
5757.50	31.10	110.61 (215.00)	441.96 (1450.00)
5762.50	34.10	102.89 (200.00)	438.91 (1440.00)
5767.50	34.10	92.60 (180.00)	457.20 (1500.00)
5772.50	34.10	82.31 (160.00)	448.06 (1470.00)
5777.50	64.03	78.20 (152.00)	426.72 (1400.00)
5782.50	64.03	82.31 (160.00)	420.62 (1380.00)
5787.50	59.18	77.17 (150.00)	420.62 (1380.00)
5792.50	67.85	77.17 (150.00)	420.62 (1380.00)
5797.50	60.08	77.17 (150.00)	420.62 (1380.00)
5802.50	67.85	77.17 (150.00)	420.62 (1380.00)
5804.50	68.59	77.17 (150.00)	420.62 (1380.00)
5810.50	34.10	77.17 (150.00)	396.24 (1300.00)
5815.00	67.85	77.17 (150.00)	368.81 (1210.00)
5817.50	61.82	79.74 (155.00)	344.42 (1130.00)
5822.50	67.85	79.74 (155.00)	326.14 (1070.00)
5827.50	46.10	81.28 (158.00)	310.90 (1020.00)
5832.50	60.08	77.17 (150.00)	292.61 (960.00)
5837.50	64.03	78.20 (152.00)	259.08 (850.00)
5839.50	70.08	79.22 (154.00)	252.98 (830.00)
5842.50	59.18	82.31 (160.00)	243.84 (800.00)
5844.00	49.09	82.31 (160.00)	240.79 (790.00)
5847.50	60.08	78.20 (152.00)	234.70 (770.00)
5849.50	67.85	78.20 (152.00)	228.60 (750.00)
5852.50	61.82	80.77 (157.00)	219.46 (720.00)
5854.50	62.93	80.77 (157.00)	213.36 (700.00)
5862.50	64.03	81.80 (159.00)	204.22 (670.00)
5889.50	64.03	81.80 (159.00)	198.12 (650.00)

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5890.50	64.03	81.80 (159.00)	198.12 (650.00)
5895.50	69.32	82.31 (160.00)	179.83 (590.00)
5900.50	34.10	82.31 (160.00)	172.21 (565.00)
5905.50	66.31	82.31 (160.00)	134.11 (440.00)
5910.50	61.00	82.31 (160.00)	112.78 (370.00)
5915.50	56.92	82.31 (160.00)	91.44 (300.00)
5920.50	40.10	82.31 (160.00)	60.96 (200.00)
5925.50	67.85	82.31 (160.00)	30.48 (100.00)
5928.50	49.09	82.31 (160.00)	12.19 (40.00)
5930.50	68.59	82.31 (160.00)	.00 (.00)
5933.50	71.67	84.37 (164.00)	9.14 (30.00)
5935.50	78.00	87.46 (170.00)	18.29 (60.00)
5940.50	78.50	90.54 (176.00)	67.06 (220.00)
5945.50	78.50	96.20 (187.00)	115.82 (380.00)
5950.50	78.50	102.89 (200.00)	176.78 (580.00)
5955.50	55.00	97.74 (190.00)	195.07 (640.00)
6015.50	57.71	92.60 (180.00)	198.12 (650.00)
6020.50	40.10	82.31 (160.00)	182.88 (600.00)
6025.50	56.92	82.31 (160.00)	179.83 (590.00)
6085.50	40.10	79.74 (155.00)	182.88 (600.00)
6145.50	57.71	82.31 (160.00)	193.55 (635.00)
6175.50	64.03	81.80 (159.00)	198.12 (650.00)
6176.50	64.03	81.80 (159.00)	198.12 (650.00)
6181.50	69.32	82.31 (160.00)	179.83 (590.00)
6186.50	34.10	82.31 (160.00)	172.21 (565.00)
6191.50	66.31	82.31 (160.00)	134.11 (440.00)
6196.50	61.00	82.31 (160.00)	112.78 (370.00)
6201.50	56.92	82.31 (160.00)	91.44 (300.00)
6206.50	40.10	82.31 (160.00)	60.96 (200.00)
6211.50	67.85	82.31 (160.00)	30.48 (100.00)
6214.50	49.09	82.31 (160.00)	12.19 (40.00)
6216.50	68.59	82.31 (160.00)	.00 (.00)
6219.50	71.67	84.37 (164.00)	9.14 (30.00)
6221.50	78.00	87.46 (170.00)	18.29 (60.00)
6226.50	78.50	90.54 (176.00)	67.06 (220.00)
6231.50	78.50	96.20 (187.00)	115.82 (380.00)
6236.50	78.50	102.89 (200.00)	176.78 (580.00)
6241.50	55.00	97.74 (190.00)	195.07 (640.00)
6301.50	57.71	92.60 (180.00)	198.12 (650.00)
6306.50	40.10	82.31 (160.00)	182.88 (600.00)
6311.50	56.92	82.31 (160.00)	179.83 (590.00)
6371.50	40.10	79.74 (155.00)	182.88 (600.00)
6431.50	57.71	82.31 (160.00)	193.55 (635.00)
6461.50	64.03	81.80 (159.00)	198.12 (650.00)
6462.50	64.03	81.80 (159.00)	198.12 (650.00)
6467.50	69.32	82.31 (160.00)	179.83 (590.00)
6472.50	34.10	82.31 (160.00)	172.21 (565.00)
6477.50	66.31	82.31 (160.00)	134.11 (440.00)
6482.50	61.00	82.31 (160.00)	112.78 (370.00)
6487.50	56.92	82.31 (160.00)	91.44 (300.00)

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6492.50	40.10	82.31 (160.00)	60.96 (200.00)
6497.50	67.85	82.31 (160.00)	30.48 (100.00)
6500.50	49.09	82.31 (160.00)	12.19 (40.00)
6502.50	68.59	82.31 (160.00)	.00 (.00)
6505.50	71.67	84.37 (164.00)	9.14 (30.00)
6507.50	78.00	87.46 (170.00)	18.29 (60.00)
6512.50	78.50	90.54 (176.00)	67.06 (220.00)
6517.50	78.50	96.20 (187.00)	115.82 (380.00)
6522.50	78.50	102.89 (200.00)	176.78 (580.00)
6527.50	55.00	97.74 (190.00)	195.07 (640.00)
6587.50	57.71	92.60 (180.00)	198.12 (650.00)
6592.50	40.10	82.31 (160.00)	182.88 (600.00)
6597.50	56.92	82.31 (160.00)	179.83 (590.00)
6657.50	40.10	79.74 (155.00)	182.88 (600.00)
6717.50	57.71	82.31 (160.00)	193.55 (635.00)
6747.50	64.03	81.80 (159.00)	198.12 (650.00)
6748.50	64.03	81.80 (159.00)	182.88 (600.00)
6750.00	70.06	82.31 (160.00)	179.83 (590.00)
6753.50	61.00	83.34 (162.00)	178.31 (585.00)
6757.50	34.10	82.31 (160.00)	172.21 (565.00)
6760.50	64.03	79.22 (154.00)	148.30 (480.00)
6763.50	66.31	82.31 (160.00)	134.11 (440.00)
6768.50	61.42	82.31 (160.00)	112.78 (370.00)
6773.50	57.71	82.31 (160.00)	91.44 (300.00)
6774.50	53.56	82.31 (160.00)	82.30 (270.00)
6776.00	53.56	82.31 (160.00)	79.25 (260.00)
6778.50	40.10	82.31 (160.00)	60.96 (200.00)
6781.50	67.85	83.85 (163.00)	30.48 (100.00)
6786.50	53.56	83.85 (163.00)	12.19 (40.00)
6787.50	53.56	84.37 (164.00)	9.14 (30.00)
6793.50	34.10	77.17 (150.00)	.00 (.00)
6808.50	34.10	15.43 (30.00)	.00 (.00)
6866.50	34.10	.00 (.00)	.00 (.00)
6868.50	34.10	.00 (.00)	.00 (.00)
6870.50	60.08	.00 (.00)	.00 (.00)
6888.50	34.10	.00 (.00)	.00 (.00)
6890.50	34.10	.00 (.00)	.00 (.00)
6892.50	60.08	.00 (.00)	.00 (.00)
7348.50	34.10	.00 (.00)	.00 (.00)

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